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### MARINE MAMMAL DATA COLLECTED DURING A SURVEY IN THE EASTERN TROPICAL PACIFIC OCEAN ABOARD THE NOAA SHIPS *McARTHUR* AND *DAVID STARR JORDAN*, JULY 28 - DECEMBER 9, 2000

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U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
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Southwest Fisheries Science Center

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## INTRODUCTION

The *Stenella* Abundance Research project (STAR00) was a multidisciplinary field study of cetacean populations in the eastern tropical Pacific Ocean (ETP) ecosystem. This report summarizes the survey procedures and data obtained on marine mammals during the third and final year of this three-year (1998-2000) project by the Southwest Fisheries Science Center (SWFSC). Separate reports summarize the associated fauna (Olson *et al.* 2001), the environmental and oceanographic findings (Philbrick *et al.* in prep) and the ichthyoplankton (SWFSC in prep). The project's first two years of marine mammal data were summarized in Kinzey *et al.* (1999, 2000).

In 1997 the U.S. Congress directed the Secretary of Commerce to determine whether the chasing and deployment of purse seine nets around dolphins during tuna fishing operations is having a significant adverse impact on any depleted dolphin stock (International Dolphin Program Conservation Act, Public Law 105-42). A portion of this mandate directed the National Marine Fisheries Service to undertake three field surveys between 1998 and 2000 to estimate the current abundances of the populations of dolphins in the area affected by the fishery. A planning meeting was held in December 1997 to establish the survey procedures and boundaries for the study area (Gerrodette *et al.* 1998). The results of the 1998 and 1999 surveys were used to make preliminary estimates of abundance for each of four target stocks of dolphins (Gerrodette 1999, 2000). The 2000 estimates of abundance for cetacean stocks in the ETP will be based on the sightings described in this report.

The SWFSC has conducted research on the cetacean populations of the ETP since the mid-1970's. The line-transect field methodologies in current use were originally established for the five-year "Monitoring of Porpoise Stocks" (MOPS) program of surveys the SWFSC completed between 1986 and 1990. MOPS produced estimates of abundance over this five-year period for 24 stocks of cetaceans representing 19 species or genera (Wade and Gerrodette 1993). The MOPS program also produced annual estimates for the four species of dolphins (*Stenella attenuata*, *S. longirostris*, *S. coeruleoalba*, and *Delphinus delphis*) believed to be most affected by the fishery (Wade and Gerrodette 1992). Additional information regarding the abundance of stocks of dolphins taken by the fishery is available through analysis of sighting data from the tuna vessels (Anganuzzi and Buckland 1994).

The STAR00 survey was conducted using two ships, the NOAA Ships *McArthur* and *David Starr Jordan* (hereafter referred to as the *Jordan*) with cruise numbers assigned as follows:

<i>David Starr Jordan</i>	DS-00-04	SWFSC Cruise Number 1615
<i>McArthur</i>	AR-00-06	SWFSC Cruise Number 1616

## SURVEY OBJECTIVES

The primary objective of the study was to estimate abundances of the dolphin stocks affected by the ETP purse-seine fishery for yellowfin tuna (*Thunnus albacares*). The survey's design targeted the depleted stocks of eastern spinner dolphins (*Stenella longirostris orientalis*) and

the northeastern offshore stock of spotted dolphins (*Stenella attenuata*). In addition to data suitable for line-transect analysis, behavioral, acoustic, photogrammetric, genetic, and individual whale identification data were collected on the region's cetaceans and are described in this report.

## STUDY AREA

The study area extended from the US/Mexico border, south to the territorial waters of Peru, bounded on the east by the continental shores of the Americas, and to the west by Hawaii (roughly from 30° N to 18° S out from the coastline to 153° W, see Fig. 1 and Appendix A). This area is the same as was covered during the 1998 and 1999 surveys and approximately the same as that covered by the 1986-1990 MOPS surveys. Examination of dolphin sightings from research and fishing vessels indicated that this region encompasses the entire distribution of the dolphin stocks most affected by the fishery (Gerrodette *et al.* 1998). The study area was divided into three sampling strata which received different levels of survey effort: the core area, the outer area, and the coastal area (Fig.1).

## ITINERARY

The survey began on July 28 and ended on December 9, 2000. It was composed of five legs on the *McArthur* and six legs on the *Jordan*. Scheduled survey legs varied between 19 and 29 days in length, separated by 3 to 5 days in port. Equipment malfunctions on the *Jordan* increased the Puerto Quetzal, Guatemala port call to 6 days. The itineraries for the ships are listed below.

NOAA Ship *David Star Jordan*:

	29 JUL	Depart San Diego, CA
29	JUL	- 16 AUG Leg I
16	AUG	- 19 AUG Mazanillo, Mexico
19	AUG	- 08 SEP Leg II
08	SEP	- 12 SEP Acapulco, Mexico
12	SEP	- 01 OCT Leg III
01	OCT	- 05 OCT Puntarenas, Costa Rica
05	OCT	- 23 OCT Leg IV
23	OCT	- 29 OCT Puerto Quetzal, Guatemala
29	OCT	- 16 NOV Leg V
16	NOV	- 20 NOV Manzanillo, Mexico
20	NOV	- 09 DEC Leg VI
		09 DEC Arrive San Diego, CA

NOAA Ship *McArthur*:

	28 JUL	Depart San Diego, CA
28	JUL	- 25 AUG Leg I
25	AUG	- 30 AUG Honolulu, Hawaii
30	AUG	- 29 SEP Leg II
29	SEP	- 05 OCT Puntarenas, Costa Rica
05	OCT	- 25 OCT Leg III

25 OCT - 29 OCT Callao, Peru  
29 OCT - 14 NOV Leg IV  
14 NOV - 18 NOV Panama City, Panama  
18 NOV - 09 DEC Leg V  
09 DEC Arrive San Diego, CA

## SCIENTIFIC PERSONNEL

The scientific complement per leg included 15 to 16 scientists aboard the *Jordan* and 13 aboard the *McArthur*. Appendix B lists the scientists and ship-legs on which they participated.

Three six-person teams of marine mammal observers rotated between the ships. Each team spent three legs on the *Jordan* so that their estimates of school size could be calibrated with photogrammetric counts of school size taken from the helicopter. Additionally, the *Jordan* had two photogrammetrists and the *McArthur* had two acousticians per leg. Data collected by birders and oceanographers aboard each vessel will be summarized in separate reports, as noted above.

## EQUIPMENT AND PROCEDURES

### Line-Transect Survey

Line-transect procedures (Buckland *et al.* 1993) developed at SWFSC for estimating absolute abundances of cetaceans were followed during the survey. The *McArthur* and *Jordan*, 53.3 m and 52.1 m in length, respectively, maintained cruising speeds of approximately 18.5 km/hr (10 knots) along pre-determined tracklines (Figures 1 - 3) while actively searching for marine mammals ("on-effort" mode). Observers conducted a visual watch for marine mammals during daylight hours (approximately 0600 to 1800) using two 25 X 150 power "bigeye" binoculars mounted on the port and starboard sides of the ship's flying bridge. For each marine mammal sighting, bearing (using an azimuth ring on the binocular mount to measure angle) and distance (using a reticle scale inscribed in the eyepiece) were recorded, along with the initial sighting cue and related information.

Six observers on each ship rotated through three watch positions: port binocular, center observer/data recorder, and starboard binocular. Observers shifted positions every 40 minutes. At least one identification specialist with previous experience in the ETP was on watch at all times.

Total binocular height above the water for the *McArthur* was 10.4 meters, giving a maximum ship-to-horizon sighting distance of approximately 11.5 km (6.2 nm). On the *Jordan*, total binocular height above the water was 10.7 meters, giving a maximum ship-to-horizon sighting distance of approximately 11.7 km (6.3 nm). A third 25 X 150 binocular was mounted near the center of the flying bridge on both ships for periodic use during sightings (but not during searching mode). On the *Jordan* a fourth, centrally located bigeye was also used occasionally during cetacean sightings.

Sighting data were collected by the three observers in the three watch positions on each ship. No information from other observers or binocular positions was relayed to this primary team during searching effort. The observer at the port binocular surveyed the area between 10° right and 90° left of the trackline. The observer at the starboard binocular surveyed the area between 10° left and 90° right of the trackline. Thus, the area 10° to either side of the trackline was covered by both bigeye observers while more lateral regions were covered by one observer or the other. Using unaided eye and a handheld 7X binocular, the center observer searched the entire 180° forward of the ship, with effort focused on the trackline and the area from the ship out to about 400 meters (the "blind" area for observers using the 25X binoculars).

The center observer also served as the data recorder and entered sighting, weather and effort information into a laptop computer on the flying bridge using the SWFSC software program "WinCruz". The computer was linked to the ship's global positioning system to record time and position for every event entered by the recorder such as a sighting or effort change, or automatically every 10 minutes if no other event had been entered.

When a sighting was made, searching effort was typically suspended (i.e., "off-effort") and the ship entered "closing" mode with variable speeds and courses in order to approach the mammals. Schools were approached if they were within three nautical miles perpendicular to the trackline. Observers identified cetaceans to the level of species/stock when possible, and then made independent estimates of school size. If more than one taxon was present, percent composition of the school was estimated independently by each observer. Sightings of new schools made while in closing mode were recorded as off-effort sightings. While in closing mode, ancillary projects such as photo-identification and skin biopsy sampling might be conducted.

Upon completion of activities associated with the sighting, the ship returned to searching mode on a course parallel to the original trackline unless this was greater than 10 nm (18.5 km) from it, in which case the ship resumed searching on a 20° course back to the original trackline. If a school that had been previously recorded as an off-effort sighting during closing mode was resighted during searching, it was recorded as an on-effort sighting.

### Acoustics

There were three main goals of the acoustic program for the STAR00 survey: to determine whether acoustics can aid in the estimation of dolphin abundance, to gather additional information on the range of acoustic detection of sperm whales (*Physeter macrocephalus*), and to examine geographic variation of Bryde's (*Balaenoptera edeni*) and blue whale (*B. musculus*) vocalizations. Two procedures were used to gather these data: 1) continuous monitoring and recording of dolphin and sperm whale vocalizations obtained from a towed hydrophone array on the *McArthur*, and 2) opportunistic deployment of sonobuoys for recording baleen whales from both the *McArthur* and the *Jordan*.

Weather permitting, the hydrophone array on the *McArthur* was deployed at daybreak and retrieved at sunset. Four different arrays were used at different times, each towed 200 meters behind the ship approximately 6 meters below the water surface. The primary array was a 5-

element Norris array with sensitivity from 15 Hz to 40 kHz. The secondary array was a high frequency 3-element Norris array with sensitivity from 500 Hz to 150 kHz. The third array was a 5-element Innovative Transducers Inc. array with sensitivity from 10 Hz to 15 kHz. The fourth array, borrowed from Southeast Fisheries Science Center, was a 5-element Norris array with sensitivity from 15 Hz to 40 kHz.

Signals received from the array were amplified and monitored by an acoustic technician. Two acoustic technicians rotated on three-hour shifts during daylight hours. Clear cetacean sounds were recorded on a Tascam DA-38 multi-channel recorder and occasionally high frequency vocalizations were recorded directly to the computer hard disk. A record was kept of acoustic effort, comments and five minute acoustic updates using the program WHALTRAK. Real-time visual displays of sounds were monitored using Ishmael software, which also allows for localization of vocalizing animals via beamforming and phone-pair (cross-correlation) algorithms. These angles could then be plotted on the WHALTRAK display and saved to file.

Information regarding sperm whale detections was not shared between visual and acoustic teams until the animals had clearly passed abeam of the vessel; therefore, the visual and acoustic detections of this species are considered independent. Visual observers frequently relayed information about delphinid sightings to the acoustic team to aid them in their documentation of delphinid whistle recordings.

Navy surplus sonobuoys were deployed from both ships to record cetacean sounds. On the *McArthur*, these were deployed on schools that could not be successfully recorded with the hydrophone array. The focus of these efforts was to obtain recordings of Bryde's whales and blue whales, especially for animals from which genetic samples (see Biopsy Studies below) were obtained. Sonobuoys (type 53 or type 57) were typically deployed within about half a nautical mile of a baleen whale that had been sighted by the visual team. The high frequency type 57 sonobuoys were occasionally deployed in the proximity of odontocetes to record their whistles. Sonobuoy signals were recorded on a DAT recorder and were monitored using a scrolling spectrographic display.

#### Photo-Identification and Biopsy Studies

35 mm photographs of cetacean schools and individuals were taken in order to assist with stock delineations and for studies utilizing identifiable individuals to determine stock movement or, for some whale species, as an alternative means of estimating population sizes. These studies were often conducted in conjunction with biopsy sampling using a hollow-tipped dart fired from a crossbow to obtain a small sample of skin for genetic analysis. Both 35 mm photography and biopsy sampling were conducted either from the bow of the ship or from a small boat with outboard engine.

#### Aerial Photogrammetry

Helicopter operations were conducted from the *Jordan* in order to obtain photographs of dolphin schools for calibrating observer estimates of school size, for analysis of cetacean lengths, and for studies of pinniped and seabird colonies. Flights were made in the morning and afternoon during optimal weather conditions: clear skies and sea state below Beaufort 4. All mammal observers on the vessel made estimates of school size and taxonomic composition for these calibration schools.

### Behavior

Behavioral data collection emphasized dolphin schools and focused on behaviors that would indicate reactions to the vessel. The data included information on (1) group behavior, (2) school size and shape, (3) reactions to the research vessel and (4) an estimate by the observer of whether the overall reaction of the school to the research vessel was evasive, non-evasive, both, or unknown. These data were collected using minor modifications to the additional data fields on the Marine Mammal Sighting Form that were initiated with the 1999 survey.

## RESULTS

### Line-transect Observations

A total of 31,170 kilometers of trackline were surveyed by the two ships during 216 ship-days of on-effort searching. The daily record of kilometers surveyed by each ship is reported in Table 1. An average of 144 km (78 nm) of trackline was searched per ship per on-effort day. Figure 1 depicts the locations of the combined tracklines. Tracklines completed individually by the *Jordan* and the *McArthur* are depicted in Figures 2 and 3, respectively. The *McArthur* surveyed the most offshore and southern portions of the study area, while the *Jordan's* tracklines were concentrated in the core area.

A total of 1393 sightings of marine mammals were made during the survey: 817 from the *Jordan* and 576 from the *McArthur*. 1180 of these sightings were on-effort, made during searching mode by the on-duty observers. Table 2 reports the times, locations, average estimated school size, and related information for each sighting, organized by sighting-category (a single species, stock, or more general category such as "unidentified dolphin"). Table 3 summarizes the total numbers of sightings detailed in Table 2. A total of 49 sighting-categories of marine mammals, including 33 management stocks distributed among 29 identified species, were recorded. Maps depicting the geographic positions for all cetacean sightings are displayed in Figures 4-26.

The number of sightings in Table 3 are tabulated by the number of "pure" (single sighting-category) and "mixed" (multiple category) schools. 78% of all schools were pure schools. The grand total of 1567 pure and mixed sightings in Table 3 exceeds the actual number of sightings by 174 because mixed sightings are counted separately in the table for each category recorded in the sighting.

The most common sighting-category was unidentified dolphin, found in about 16% of the total schools (Table 3). These tended to be small schools, with an average estimated size of

14 individuals. The second most common sighting-category was the striped dolphin (*Stenella coeruleoalba*) at 11%, followed by the bottlenose dolphin (*Tursiops truncatus*) at 10%. One of the target stocks, the northeastern offshore spotted dolphin (*S. attenuata*) was found in about 10% of all sightings. The second target stock, eastern spinner dolphin (*S. l. orientalis*), was found in about 5% of all sightings. Long-beaked common dolphin (*Delphinus capensis*) formed the largest schools, with an average school size of 504 individuals.

The most commonly identified species of large whales were Bryde's whale (*Balaenoptera edeni*) and blue whale (*Balaenoptera musculus*) at 2% and 1% of all sightings, respectively. Cuvier's beaked whale (*Ziphius cavirostris*) also comprised 2% of the sightings. Unidentified beaked whale (*Mesoplodon* or *Ziphius* spp.) comprised 3% of all sightings, with an additional 1% that were identifiable to the genus *Mesoplodon* but not to species. Sperm whale sightings comprised 1% of all marine mammal sightings.

Table 4 tabulates the different kinds of mixed sighting-category schools recorded during the survey. One hundred and sixty-four schools were mixed. The most common of these, 30% of all mixed schools, were comprised of the two target stocks, northeastern offshore spotted dolphin and eastern spinner dolphin. The second most common type of mixed school, 11% of all mixed schools, were comprised of northeastern offshore spotted dolphin and the whitebelly stock of spinner dolphin (*Stenella longirostris* hybrid). 33% of the mixed schools contained bottlenose dolphin.

The overall sighting rate was 37.9 sightings per 1000 km (Table 5). Sighting rates were influenced by sea state and swell height (Table 5).

#### Acoustics

The hydrophone array was towed and monitored for approximately 14,900 km (8,058 nmi). The primary 5-element Norris array was used on Leg 1 and the beginning of Leg 2. It was damaged during Leg 2 and rendered inoperative for the remainder of the cruise. The high frequency 3-element Norris array was used on Leg 1 and Leg 3. The Innovative Transducers Inc. array was used briefly on Leg 2, where it was found to be ineffective due to excessive static and a low sensitivity. The second of the 5-element Norris arrays was used on Legs 3, 4, and 5.

Recordings from the towed hydrophone array included vocalizations from short-beaked common dolphin (*Delphinus delphis*), long-beaked common dolphin, spinner dolphin, spotted dolphin, striped dolphin, bottlenose dolphin, rough-toothed dolphin (*Steno bredanensis*), Risso's dolphin (*Grampus griseus*), false killer whale (*Pseudorca crassidens*), killer whale (*Orinus orca*), pilot whale (*Globicephala* sp.), and sperm whale (Table 6). All non-sighted acoustic detections, with the exception of sperm whales, were defined as "unidentified dolphins".

Most of the dolphin schools sighted by the visual team from the flying bridge were also detected by the acoustics team using the towed hydrophone array (Fig. 27). Additionally,

vocalizations from non-sighted dolphin schools were recorded, with a substantial increase in these non-sighted acoustic detections in Leg 5 (Fig. 28). Many of these non-sighted acoustic detections had a closest point of approach beyond the range of the visual observers. Post-processing of beam-form angles will allow for the determination of detection distances, which will allow for a better estimate of the number of non-sighted acoustic detections that were within the visual detection range.

There were a total of 27 acoustic detections of sperm whales, 6 of which were detected by the visual observation team (Fig. 29). In all cases the acoustics team was the first to detect the animals, with some vocalizations detected greater than 10 nm from the animals.

A total of 79 sonobuoys were deployed from the ships, of which 45 were successful. Twenty-four sonobuoy recordings of blue whale, Bryde's whale, humpback whale, false killer whale, pilot whale, and bottlenose dolphin sightings were obtained (Table 7).

#### 35 mm Photography

One hundred sixty-eight cetacean schools were photographed (Table 8). Sixty-four of these contained various stocks of spotted and spinner dolphins, or both. Photographs of individually-identifiable whales that will be submitted to existing ID catalogs were obtained from a total of 39 different sightings. These included 15 sightings of blue whale (21 identifiable whales), 11 sightings of humpback whale (*Megaptera novaeangliae* - 20 identifiable whales, including 5 fluke photos), 12 sightings of killer whale (49 identifiable whales), and 1 sperm whale sighting (20 identifiable whales) (Table 9).

Photographs of identifiable individual whales were obtained in association with biopsy skin samples for 16 blue whales, 5 humpback whales, and 2 sperm whales.

#### Aerial Photogrammetry

Tables 10 and 11 summarize the photogrammetry results obtained by the helicopter on the *Jordan*. A total of 99 schools were photographed, of which 32 were used to calibrate observer estimates of school size. Twenty-four spotted, 2 spinner, 10 mixed spotted/spinner, and 21 striped dolphin schools were photographed in the combined calibration and other aerial photogrammetric studies.

#### Biopsy Sampling

Skin biopsy samples were obtained from 693 individual cetaceans representing 20 species or stocks (Tables 12 and 13). For spotted dolphin, biopsies from the northeast stock, spotted schools unidentified to stock, and the coastal stock totaled 107, 82, and 85 samples, respectively. For spinner dolphin, the eastern stock was represented by 79 samples. No samples were obtained from the hybrid or "whitebelly" form of spinner dolphin.

#### Behavior

Behavioural data regarding cetacean responses to the survey ships was collected for 1200 sightings (Table 14), 86% of all sightings. The responses of 40 sighting-categories of 10 species (13 stocks) of dolphins and 14 species of whales were recorded.

## ACKNOWLEDGEMENTS

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For further information about these data contact the following: marine mammal sightings, Tim Gerrodette; acoustics, Jay Barlow; aerial photogrammetry, Wayne Perryman; genetics, Andy Dizon; 35 mm photographs, Paula Olson.

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Table 1. Kilometers of survey effort during STAR00 per ship per day.

Date		<i>McArthur</i>	<i>Jordan</i>	Date		<i>McArthur</i>	<i>Jordan</i>
29 Jul	0	246.5	42.1	17 Sep	0	155.0	3.6
30 Jul	0	224.8	97.1	18 Sep	0	188.2	207.4
31 Jul	0	228.2	150.3	19 Sep	0	0.0	197.6
1 Aug	0	239.8	127.1	20 Sep	0	191.6	151.3
2 Aug	0	225.1	127.3	21 Sep	0	244.1	116.1
3 Aug	0	152.4	192.7	22 Sep	0	195.2	126.7
4 Aug	0	42.2	205.2	23 Sep	0	140.2	117.8
5 Aug	0	250.1	156.5	24 Sep	0	121.0	142.5
6 Aug	0	176.1	118.0	25 Sep	0	0.0	81.4
7 Aug	0	167.0	112.0	26 Sep	0	195.7	132.6
8 Aug	0	231.8	120.5	27 Sep	0	167.1	126.0
9 Aug	0	173.2	150.1	28 Sep	0	134.1	134.7
10 Aug	0	147.9	164.4	30 Sep	0	0.0	88.0
11 Aug	0	145.9	126.3	5 Oct	0	71.2	34.2
12 Aug	0	111.4	119.7	6 Oct	0	147.4	160.8
13 Aug	0	168.6	153.7	7 Oct	0	150.9	102.2
14 Aug	0	214.6	0.0	8 Oct	0	221.6	145.8
15 Aug	0	129.6	91.0	9 Oct	0	226.9	149.4
16 Aug	0	182.0	0.0	10 Oct	0	95.4	204.2
17 Aug	0	216.8	0.0	11 Oct	0	112.9	166.7
18 Aug	0	183.7	0.0	12 Oct	0	219.4	118.1
19 Aug	0	42.5	88.3	13 Oct	0	217.9	67.0
20 Aug	0	208.9	109.9	14 Oct	0	198.1	132.0
21 Aug	0	104.7	133.5	15 Oct	0	84.0	100.8
22 Aug	0	182.1	111.1	16 Oct	0	20.6	169.6
23 Aug	0	128.9	155.9	17 Oct	0	189.9	154.7
24 Aug	0	135.1	184.6	18 Oct	0	220.5	125.8
25 Aug	0	0.0	150.4	19 Oct	0	186.7	132.3
26 Aug	0	0.0	159.4	20 Oct	0	174.0	90.3
27 Aug	0	0.0	119.0	21 Oct	0	179.1	107.3
28 Aug	0	0.0	14.4	22 Oct	0	212.1	101.9
29 Aug	0	0.0	178.1	23 Oct	0	162.7	0.0
30 Aug	0	0.0	149.9	24 Oct	0	111.8	0.0
31 Aug	0	0.0	47.9	29 Oct	0	68.3	21.2
1 Sep	0	243.9	55.3	30 Oct	0	131.7	140.4
2 Sep	0	246.1	162.0	31 Oct	0	100.4	123.1
3 Sep	0	198.8	160.8	1 Nov	0	178.4	98.9
4 Sep	0	226.7	164.8	2 Nov	0	166.9	97.6
5 Sep	0	226.7	140.9	3 Nov	0	28.3	119.6
6 Sep	0	139.9	165.8	4 Nov	0	132.8	58.4
7 Sep	0	198.4	123.6	5 Nov	0	150.4	0.0
8 Sep	0	140.2	0.0	6 Nov	0	159.1	44.3
9 Sep	0	161.1	0.0	7 Nov	0	124.0	187.8
10 Sep	0	140.2	0.0	8 Nov	0	188.0	198.7
11 Sep	0	155.0	0.0	9 Nov	0	162.3	105.8
12 Sep	0	176.7	70.2	10 Nov	0	39.5	45.7
13 Sep	0	164.6	148.3	11 Nov	0	25.8	195.9
14 Sep	0	120.3	157.6	12 Nov	0	159.0	155.8
15 Sep	0	169.2	179.2	13 Nov	0	103.4	164.3
16 Sep	0	149.5	19.4	14 Nov	0	0.0	139.8

Table 1. Survey effort (continued)

Date		<i>McArthur</i>	<i>Jordan</i>
15 Nov	0	0.0	127.0
18 Nov	0	61.0	0.0
19 Nov	0	151.0	0.0
20 Nov	0	182.1	76.2
21 Nov	0	205.2	163.1
22 Nov	0	34.2	85.7
23 Nov	0	166.2	156.2
24 Nov	0	192.9	193.1
25 Nov	0	165.0	153.7
26 Nov	0	124.1	188.5
27 Nov	0	126.4	154.1
28 Nov	0	180.4	127.6
29 Nov	0	160.2	168.7
30 Nov	0	120.6	191.9
1 Dec	0	173.3	33.1
2 Dec	0	130.1	174.4
3 Dec	0	168.1	145.4
4 Dec	0	143.2	134.1
5 Dec	0	118.2	137.0
6 Dec	0	162.3	139.5
7 Dec	0	155.7	0.0
8 Dec	0	86.3	53.3
Total		17377.2	13792.5

Table 2. Marine mammal sightings during STAR00 for each sighting-category. “Other Codes” column indicates the other sighting-categories (see Appendix C) in a mixed-species school. Times are local. School size is the uncalibrated mean of the observers’ best estimates of school size. Sighting numbers less than 1000 were made from the *McArthur*, those over 1000 were made from the *Jordan*.

Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Obs. Bft.	School no.	Size	Ef-fort
<i>Mesoplodon peruvianus</i>										
001		1299	5 Sep 00	1351	N12:56.82	W101:18.51	2	197	4	On
<i>Stenella attenuata</i> (offshore)										
002		5	2 Aug 00	1545	N20:17.35	W124:16.54	3	73	44	On
002 010		7	4 Aug 00	1848	N21:39.98	W119:22.11	5	125	60	On
002		15	6 Aug 00	1518	N17:24.10	W119:59.44	2	7	15	On
002		1109	7 Aug 00	0833	N23:04.41	W110:39.00	4	92	5	Off
002		24	7 Aug 00	1007	N15:41.77	W121:03.72	4	196	209	On
002 011		25	7 Aug 00	1035	N15:37.60	W121:07.16	4	199	30	On
002		22	7 Aug 00	0746	N15:57.49	W120:52.45	3	7	57	On
002 010		1115	8 Aug 00	0840	N21:38.72	W109:12.27	2	200	86	On
002		1130	9 Aug 00	1558	N24:47.04	W109:47.78	3	99	167	Off
002 017		1125	9 Aug 00	0956	N24:09.55	W109:30.76	5	126	7	On
002		42	10 Aug 00	1317	N10:10.25	W126:49.51	2	125	62	On
002 011		44	10 Aug 00	1354	N10:09.42	W126:55.81	2	73	474	On
002 011		40	10 Aug 00	0859	N10:00.54	W126:23.95	3	7	243	On
002 011		54	11 Aug 00	1831	N11:59.01	W129:46.23	1	199	339	On
002 010		1150	11 Aug 00	1813	N22:29.07	W107:13.52	4	98	217	Off
002 010		1149	11 Aug 00	1742	N22:23.30	W107:11.84	4	92	488	On
002 011		72	12 Aug 00	1805	N13:24.82	W131:57.82	0	73	128	Off
002 011		66	12 Aug 00	1217	N12:57.95	W131:26.88	1	125	149	On
002		1158	12 Aug 00	1324	N21:10.49	W106:19.86	3	197	74	On
002 011		80	13 Aug 00	1347	N11:43.80	W132:35.00	2	196	269	On
002 010		1169	13 Aug 00	0958	N20:31.87	W107:41.95	3	92	84	On
002		79	13 Aug 00	1300	N11:50.58	W132:35.62	2	125	36	On
002 010		1176	13 Aug 00	1808	N20:04.27	W108:54.82	2	200	403	On
002 010		1167	13 Aug 00	0819	N20:39.05	W107:25.08	2	200	93	On
002 011		73	13 Aug 00	0716	N12:30.25	W132:32.24	2	196	232	On
002 010		1172	13 Aug 00	1645	N20:12.25	W108:44.68	3	91	78	On
002		82	14 Aug 00	0749	N09:25.39	W133:01.12	2	73	21	On
002 011		103	18 Aug 00	0816	N06:37.35	W141:02.07	4	188	227	On
002 011		105	18 Aug 00	1723	N08:04.44	W141:33.07	4	73	289	On
002 011		106	19 Aug 00	1606	N08:32.02	W144:35.54	4	188	236	On
002		1195	19 Aug 00	1746	N18:30.08	W105:01.15	2	126	15	On
002		1218	20 Aug 00	1838	N16:56.67	W107:41.61	1	149	134	On
002		1199	20 Aug 00	0735	N17:23.58	W106:07.98	1	92	74	On
002 010		1208	20 Aug 00	1309	N17:13.46	W107:01.31	0	126	151	On
002 010		1212	20 Aug 00	1551	N17:07.02	W107:17.01	1	126	210	On
002 015		1198	20 Aug 00	0705	N17:27.69	W106:04.41	2	200	97	On
002 011		109	21 Aug 00	0650	N09:37.70	W149:05.04	3	188	117	On
002		1227	21 Aug 00	1500	N16:14.25	W109:48.33	3	92	84	On
002 011		113	22 Aug 00	0901	N12:43.15	W150:20.61	3	188	28	On
002		1234	22 Aug 00	1032	N15:51.26	W111:55.08	3	149	32	On
002		1240	22 Aug 00	1628	N15:43.92	W112:37.34	3	99	16	Off
002 010		1239	22 Aug 00	1624	N15:46.59	W112:37.60	3	99	36	Off
002		1232	22 Aug 00	0749	N15:54.53	W111:32.31	2	92	77	On
002 010		1246	23 Aug 00	0932	N15:04.73	W114:21.54	4	92	52	On
002 003 018		123	24 Aug 00	1138	N19:20.85	W156:04.04	2	196	51	On
002		125	24 Aug 00	1655	N20:04.20	W156:00.66	3	199	37	On
002 010		1257	26 Aug 00	1747	N12:16.33	W115:12.08	3	126	70	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
002		1263	27 Aug 00	1703	N10:57.85	W116:16.97	2	126	13	On	
002 010		1262	27 Aug 00	1300	N11:18.07	W115:49.30	2	126	307	On	
002		1260	27 Aug 00	1034	N11:28.23	W115:35.20	2	91	375	On	
002 011		1267	30 Aug 00	1523	N07:52.87	W116:32.35	4	91	54	On	
002		1265	30 Aug 00	0854	N07:20.74	W117:28.27	3	149	42	On	
002 077		1266	30 Aug 00	1137	N07:34.26	W117:06.15	4	126	31	On	
002 013		1276	2 Sep 00	1204	N07:56.05	W109:27.11	5	91	19	On	
002		1275	2 Sep 00	1104	N07:50.75	W109:28.83	5	92	26	On	
002		1273	2 Sep 00	0744	N07:31.28	W109:53.96	4	126	58	On	
002		1277	2 Sep 00	1359	N08:07.63	W109:11.80	5	200	20	On	
002		1283	3 Sep 00	1544	N10:20.97	W106:14.00	5	126	11	On	
002		1279	3 Sep 00	1030	N09:54.24	W106:53.12	5	126	40	On	
002		1282	3 Sep 00	1456	N10:17.55	W106:19.39	5	149	63	On	
002 010		1288	4 Sep 00	1006	N11:45.04	W104:20.39	5	149	48	On	
002		1285	4 Sep 00	0719	N11:30.89	W104:42.20	4	126	27	On	
002 010		1300	5 Sep 00	1426	N13:03.88	W101:15.59	2	91	99	On	
002		1297	5 Sep 00	1209	N13:00.78	W101:28.51	2	92	8	Off	
002		1295	5 Sep 00	1122	N12:59.98	W101:28.04	2	91	57	On	
002 010 018		1296	5 Sep 00	1205	N12:58.52	W101:26.42	2	200	289	On	
002		1303	6 Sep 00	1159	N13:42.30	W099:09.02	3	126	44	On	
002 011		136	6 Sep 00	1518	N06:16.87	W134:02.36	5	125	134	On	
002		157	11 Sep 00	1534	S04:44.75	W125:11.36	4	188	188	On	
002 101		156	11 Sep 00	1353	S04:45.82	W125:27.08	4	73	51	On	
002 101		154	11 Sep 00	1126	S04:45.54	W125:45.74	5	125	4	On	
002		158	11 Sep 00	1650	S04:49.35	W125:01.54	4	196	108	On	
002 101		162	12 Sep 00	1011	S04:37.95	W122:40.40	5	196	130	On	
002 101		159	12 Sep 00	0634	S04:42.25	W123:11.53	4	196	67	On	
002 010		1330	13 Sep 00	1831	N15:54.74	W103:34.10	4	92	236	On	
002 010 018		1326	13 Sep 00	0940	N16:41.82	W102:24.28	5	197	100	On	
002		1333	14 Sep 00	1039	N15:07.52	W104:37.95	5	92	96	On	
002		1332	14 Sep 00	1011	N15:06.63	W104:32.85	5	197	44	On	
002		1334	14 Sep 00	1131	N15:07.35	W104:40.09	5	197	32	On	
002		178	17 Sep 00	1539	N00:39.17	W110:58.51	4	125	27	Off	
002 101		1823	20 Sep 00	0935	N05:08.15	W109:58.48	5	92	27	On	
002 010		1349	22 Sep 00	1136	N07:59.20	W104:47.08	3	91	100	On	
002		193	22 Sep 00	1603	N04:33.63	W098:35.77	4	196	103	On	
002 010		1365	23 Sep 00	1600	N10:01.48	W102:24.11	0	126	36	On	
002		1356	23 Sep 00	1024	N09:39.81	W102:50.71	3	91	17	On	
002		1359	23 Sep 00	1246	N09:47.23	W102:38.02	2	126	51	On	
002 010		1357	23 Sep 00	1059	N09:43.14	W102:46.24	3	92	73	On	
002		1358	23 Sep 00	1222	N09:50.24	W102:38.49	3	91	22	On	
002 010		1395	24 Sep 00	1406	N11:37.03	W099:56.35	1	200	33	On	
002 010		1393	24 Sep 00	1319	N11:35.37	W100:07.28	1	200	67	On	
002 010		1402	25 Sep 00	0940	N12:23.96	W097:39.99	3	149	97	On	
002		1412	25 Sep 00	1615	N12:30.78	W096:54.28	3	126	61	Off	
002 010		1409	25 Sep 00	1504	N12:28.40	W097:01.60	3	149	185	On	
002 003		1411	25 Sep 00	1606	N12:29.55	W096:56.60	3	126	42	On	
002 010		1405	25 Sep 00	1151	N12:25.44	W097:23.45	3	92	111	On	
002 003		1400	25 Sep 00	0824	N12:23.07	W097:50.88	3	91	124	On	
002 010		1406	25 Sep 00	1351	N12:31.02	W097:13.19	3	149	47	On	
002 010 018		1399	25 Sep 00	0726	N12:18.42	W097:54.01	3	197	158	On	
002 010		1415	26 Sep 00	1034	N12:54.99	W094:51.76	3	92	98	Off	
002 010		1416	26 Sep 00	1512	N13:12.59	W094:14.81	2	91	26	On	
002		261	7 Oct 00	1208	N06:04.71	W088:23.95	2	126	55	On	
002 077		272	10 Oct 00	0935	N00:42.76	W095:08.28	4	197	32	On	
002 011		285	12 Oct 00	1616	S04:34.55	W099:50.62	4	91	71	On	
002		1546	13 Oct 00	1143	N10:53.59	W091:55.48	4	125	8	On	
002 010		1544	13 Oct 00	0923	N10:56.94	W091:53.67	4	199	172	On	
002 010		1552	13 Oct 00	1836	N10:35.52	W092:25.74	4	196	52	On	
002 010 018		1550	13 Oct 00	1525	N10:43.46	W092:14.67	3	188	167	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Effort size	Effort fort
002	010	1553	14 Oct 00	0806	N09:27.63	W093:30.82	3	196	48	On	
002	010	1577	15 Oct 00	1718	N08:40.97	W096:56.32	3	7	100	On	
002		1580	15 Oct 00	1802	N08:41.34	W096:55.46	3	4	10	Off	
002		1585	16 Oct 00	1855	N08:39.59	W100:26.32	4	199	78	On	
002	018	1584	16 Oct 00	1659	N08:44.70	W100:13.06	4	196	254	On	
002	010	1589	18 Oct 00	0917	N11:23.42	W097:41.53	5	188	125	On	
002	010	1593	19 Oct 00	1149	N13:35.16	W097:17.02	5	125	65	On	
002	010	1594	19 Oct 00	1618	N14:22.49	W097:29.19	4	73	333	On	
002	003	301	20 Oct 00	0814	S09:35.29	W090:03.15	5	126	197	On	
002	010	1635	30 Oct 00	1313	N11:58.69	W093:03.64	3	125	113	On	
002		1663	2 Nov 00	1004	N06:56.77	W098:50.23	3	125	114	On	
002		1662	2 Nov 00	0736	N07:07.43	W098:35.81	3	199	173	On	
002		1667	3 Nov 00	0724	N06:20.35	W100:59.83	4	196	67	On	
002	011	1690	9 Nov 00	1604	N09:27.25	W110:55.90	5	196	54	On	
002		1687	9 Nov 00	1116	N08:59.48	W111:25.88	5	73	43	On	
002	018	1691	9 Nov 00	1710	N09:29.07	W110:48.14	5	199	67	On	
002	010	1696	10 Nov 00	0919	N10:11.95	W109:22.95	5	196	23	On	
002	010	1703	12 Nov 00	1725	N14:04.92	W104:13.44	2	73	36	On	
002	010	1701	12 Nov 00	1421	N14:04.60	W104:32.23	4	7	150	On	
002	010	1707	13 Nov 00	1647	N15:48.89	W101:55.54	1	73	167	On	
002	010	1728	15 Nov 00	1523	N18:04.21	W103:26.56	4	196	128	On	
002		1734	20 Nov 00	1743	N18:15.14	W104:35.85	3	73	313	On	
002		1746	22 Nov 00	0818	N15:11.14	W108:10.72	4	199	84	On	
002		1743	22 Nov 00	0649	N15:23.69	W107:57.14	4	125	24	Off	
002	010	1749	22 Nov 00	1524	N14:58.13	W109:16.95	5	73	44	On	
002	010	1751	23 Nov 00	1204	N14:05.38	W111:01.95	5	199	106	On	
002		1759	25 Nov 00	1558	N14:07.29	W115:02.45	4	73	27	On	
002	010	1758	25 Nov 00	1418	N14:07.08	W114:52.43	4	188	86	On	
002	003	1760	25 Nov 00	1618	N14:07.75	W115:05.03	4	7	18	On	
002		1763	26 Nov 00	0813	N14:52.47	W116:41.45	4	4	3	Off	
002	003	476	26 Nov 00	0723	N07:24.57	W097:44.40	3	91	114	On	
002	011	1768	27 Nov 00	1356	N16:31.06	W119:22.86	4	188	65	On	
002	010	496	28 Nov 00	1734	N08:55.52	W104:56.27	3	126	83	On	
002	077	492	28 Nov 00	0747	N08:40.43	W103:27.93	3	149	37	On	
002		1780	29 Nov 00	0931	N17:44.47	W114:18.46	4	99	27	Off	
002	010	499	29 Nov 00	1018	N09:06.10	W107:09.32	4	126	25	On	
002	010	505	29 Nov 00	1558	N09:17.88	W107:58.53	4	91	83	On	
002	010	497	29 Nov 00	0718	N09:05.67	W106:44.20	4	197	15	On	
002		498	29 Nov 00	0949	N09:08.92	W107:05.79	4	92	56	On	
002	010	510	30 Nov 00	1203	N10:22.34	W109:46.35	4	197	15	On	
002		513	1 Dec 00	0827	N10:56.03	W112:15.54	4	91	105	On	
002	010	514	1 Dec 00	0912	N10:57.95	W112:21.61	4	92	65	On	
002		1790	2 Dec 00	0732	N20:41.27	W112:23.25	3	73	75	On	
002		1801	3 Dec 00	1528	N18:51.18	W116:40.73	2	99	63	Off	
002		537	4 Dec 00	1725	N20:51.88	W114:17.33	2	91	44	On	
002		1810	5 Dec 00	1651	N24:28.00	W119:19.08	4	188	66	On	
002		1807	5 Dec 00	0912	N23:33.37	W118:32.90	1	188	92	On	
<i>Stenella longirostris</i> (unid. subsp.)											
003	090	1188	15 Aug 00	1527	N19:34.93	W105:17.12	3	92	48	On	
003	002	123	24 Aug 00	1138	N19:20.85	W156:04.04	2	196	3	On	
003	002	1411	25 Sep 00	1606	N12:29.55	W096:56.60	3	126	4	On	
003	002	1400	25 Sep 00	0824	N12:23.07	W097:50.88	3	91	67	On	
003	002	301	20 Oct 00	0814	S09:35.29	W090:03.15	5	126	23	On	
003	002	1760	25 Nov 00	1618	N14:07.75	W115:05.03	4	7	12	On	
003	002	476	26 Nov 00	0723	N07:24.57	W097:44.40	3	91	61	On	
003		1769	27 Nov 00	1629	N16:40.82	W119:05.75	4	188	3	On	
<i>Delphinus</i> sp.											
005		1001	29 Jul 00	1501	N32:06.66	W117:07.15	3	126	2	On	

Table 2. Marine mammal sightings (continued)

Code	Other Codes	Sighting						Obs.	School no.	Ef- size	fort
		Number	Date	Time	Latitude	Longitude	Bft.				
005		1017	30 Jul 00	1512	N29:34.93	W115:54.93	3	92	813	On	
005	018	1324	12 Sep 00	1714	N17:05.06	W100:51.63	3	126	117	On	
005		371	5 Nov 00	0611	S02:31.84	W081:10.58	4	149	80	On	
<i>Stenella attenuata graffmani</i>											
006		1318	12 Sep 00	1236	N16:56.29	W100:11.93	1	92	105	On	
006		1442	28 Sep 00	1220	N12:59.27	W088:47.25	3	126	72	On	
006		1443	28 Sep 00	1414	N12:56.79	W088:35.84	3	200	57	On	
006		1437	28 Sep 00	0651	N13:07.54	W089:29.35	2	149	34	On	
006		1441	28 Sep 00	1128	N13:02.21	W088:55.34	3	92	119	On	
006		1444	28 Sep 00	1614	N12:52.03	W088:19.80	4	92	18	On	
006	018	1460	30 Sep 00	1310	N09:49.54	W085:42.38	3	91	40	On	
006		1457	30 Sep 00	1158	N09:56.05	W085:49.99	3	92	11	On	
006	018	1453	30 Sep 00	1018	N10:05.42	W085:53.15	4	92	135	On	
006	018	1455	30 Sep 00	1118	N10:00.10	W085:50.28	3	126	59	On	
006		1459	30 Sep 00	1258	N09:51.12	W085:43.60	3	91	36	On	
006		1456	30 Sep 00	1150	N09:58.76	W085:50.74	3	200	21	On	
006	018	1461	30 Sep 00	1338	N09:47.03	W085:38.11	3	149	52	On	
006		1469	5 Oct 00	1552	N09:18.12	W084:30.20	2	188	35	On	
006		241	5 Oct 00	1203	N09:36.32	W084:42.64	3	149	279	On	
006		1464	5 Oct 00	1232	N09:36.45	W084:47.96	3	125	151	On	
006		1465	5 Oct 00	1315	N09:38.66	W084:43.24	3	73	22	On	
006		242	5 Oct 00	1349	N09:16.96	W084:41.15	2	149	134	On	
006		1484	6 Oct 00	1646	N07:48.55	W082:24.50	4	199	12	On	
006		1488	6 Oct 00	1811	N07:44.80	W082:08.52	4	196	36	On	
006		1479	6 Oct 00	1237	N07:58.47	W082:51.22	2	199	4	On	
006		1487	6 Oct 00	1747	N07:46.39	W082:14.45	4	199	4	On	
006		1495	7 Oct 00	1003	N06:57.25	W081:38.60	3	4	12	Off	
006		1490	7 Oct 00	0639	N07:25.38	W081:23.62	2	125	5	On	
006		1492	7 Oct 00	0759	N07:13.87	W081:29.50	1	199	117	On	
006		1493	7 Oct 00	0856	N07:02.77	W081:36.46	2	7	216	On	
006		1491	7 Oct 00	0709	N07:22.02	W081:26.46	2	188	5	On	
006		1606	20 Oct 00	1556	N15:36.37	W096:59.65	1	188	113	On	
006		1624	22 Oct 00	1657	N13:48.23	W091:43.92	1	188	16	On	
006		1611	22 Oct 00	0757	N14:27.48	W092:22.46	3	196	41	On	
006		1615	22 Oct 00	1205	N14:11.09	W092:06.02	2	7	64	On	
006		1613	22 Oct 00	1032	N14:15.03	W092:18.43	2	188	88	On	
006		1616	22 Oct 00	1243	N14:10.67	W092:06.83	2	188	12	Off	
006		1627	29 Oct 00	1710	N13:47.64	W090:56.64	4	196	66	On	
006		420	13 Nov 00	1146	N07:38.67	W078:36.14	3	126	303	On	
006		425	13 Nov 00	1343	N07:47.65	W078:47.93	3	92	40	On	
006		422	13 Nov 00	1210	N07:41.44	W078:43.09	3	92	454	On	
006		419	13 Nov 00	1026	N07:31.39	W078:35.99	2	126	320	On	
006		424	13 Nov 00	1302	N07:48.95	W078:47.62	3	149	317	On	
006		428	13 Nov 00	1555	N08:01.03	W079:02.47	2	91	100	On	
006		421	13 Nov 00	1208	N07:45.54	W078:43.07	3	200	183	On	
006	010	1722	15 Nov 00	0844	N17:50.14	W102:36.99	2	188	112	On	
006		433	18 Nov 00	1404	N08:31.32	W079:30.66	4	197	19	On	
006		434	18 Nov 00	1521	N08:19.54	W079:31.96	4	91	5	On	
<i>Stenella longirostris orientalis</i>											
010	002	7	4 Aug 00	1848	N21:39.98	W119:22.11	5	125	6	On	
010	002	1115	8 Aug 00	0840	N21:38.72	W109:12.27	2	200	14	On	
010	090	1143	11 Aug 00	0832	N23:30.18	W107:03.57	3	92	3	On	
010		1144	11 Aug 00	0943	N23:18.94	W107:12.81	3	126	542	On	
010	002	1149	11 Aug 00	1742	N22:23.30	W107:11.84	4	92	295	On	
010	002	1150	11 Aug 00	1813	N22:29.07	W107:13.52	4	98	117	Off	
010		1154	12 Aug 00	0858	N21:33.35	W106:43.31	2	91	493	On	
010		1165	12 Aug 00	1726	N20:49.49	W105:54.13	1	126	807	On	
010	002	1176	13 Aug 00	1808	N20:04.27	W108:54.82	2	200	195	On	

Table 2. Marine mammal sightings (continued)

Other Code	Code	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
010	002	1169	13 Aug 00	0958	N20:31.87	W107:41.95	3	92	75	On	
010	002	1167	13 Aug 00	0819	N20:39.05	W107:25.08	2	200	183	On	
010	002	1172	13 Aug 00	1645	N20:12.25	W108:44.68	3	91	114	On	
010	090	1191	19 Aug 00	1407	N18:45.44	W104:43.87	3	92	67	On	
010	002	1208	20 Aug 00	1309	N17:13.46	W107:01.31	0	126	48	On	
010	002	1212	20 Aug 00	1551	N17:07.02	W107:17.01	1	126	62	On	
010		1241	22 Aug 00	1632	N15:43.93	W112:37.60	3	99	31	Off	
010	002	1239	22 Aug 00	1624	N15:46.59	W112:37.60	3	99	36	Off	
010	002	1246	23 Aug 00	0932	N15:04.73	W114:21.54	4	92	47	On	
010	002	1257	26 Aug 00	1747	N12:16.33	W115:12.08	3	126	53	On	
010		1261	27 Aug 00	1214	N11:24.36	W115:44.34	2	92	21	On	
010	002	1262	27 Aug 00	1300	N11:18.07	W115:49.30	2	126	58	On	
010		1264	27 Aug 00	1725	N10:53.39	W116:24.08	2	126	68	On	
010		1259	27 Aug 00	0745	N11:42.73	W115:13.33	2	149	39	On	
010		1287	4 Sep 00	0838	N11:35.85	W104:36.82	4	149	50	On	
010	002	1288	4 Sep 00	1006	N11:45.04	W104:20.39	5	149	39	On	
010	002	1300	5 Sep 00	1426	N13:03.88	W101:15.59	2	91	67	On	
010	002 018	1296	5 Sep 00	1205	N12:58.52	W101:26.42	2	200	91	On	
010		1325	13 Sep 00	0850	N16:47.04	W102:19.50	4	126	99	On	
010	002 018	1326	13 Sep 00	0940	N16:41.82	W102:24.28	5	197	120	On	
010	002	1330	13 Sep 00	1831	N15:54.74	W103:34.10	4	92	71	On	
010	002	1349	22 Sep 00	1136	N07:59.20	W104:47.08	3	91	48	On	
010	002	1365	23 Sep 00	1600	N10:01.48	W102:24.11	0	126	59	On	
010	002	1357	23 Sep 00	1059	N09:43.14	W102:46.24	3	92	12	On	
010	002	1395	24 Sep 00	1406	N11:37.03	W099:56.35	1	200	39	On	
010	002	1393	24 Sep 00	1319	N11:35.37	W100:07.28	1	200	67	On	
010	002 018	1399	25 Sep 00	0726	N12:18.42	W097:54.01	3	197	83	On	
010	002	1405	25 Sep 00	1151	N12:25.44	W097:23.45	3	92	206	On	
010	002	1409	25 Sep 00	1504	N12:28.40	W097:01.60	3	149	7	On	
010	002	1406	25 Sep 00	1351	N12:31.02	W097:13.19	3	149	41	On	
010	002	1402	25 Sep 00	0940	N12:23.96	W097:39.99	3	149	104	On	
010	002	1416	26 Sep 00	1512	N13:12.59	W094:14.81	2	91	28	On	
010	002	1415	26 Sep 00	1034	N12:54.99	W094:51.76	3	92	53	Off	
010	002	1544	13 Oct 00	0923	N10:56.94	W091:53.67	4	199	88	On	
010	002 018	1550	13 Oct 00	1525	N10:43.46	W092:14.67	3	188	137	On	
010	002	1552	13 Oct 00	1836	N10:35.52	W092:25.74	4	196	8	On	
010	002	1553	14 Oct 00	0806	N09:27.63	W093:30.82	3	196	96	On	
010	002	1577	15 Oct 00	1718	N08:40.97	W096:56.32	3	7	39	On	
010	002	1589	18 Oct 00	0917	N11:23.42	W097:41.53	5	188	22	On	
010	002	1593	19 Oct 00	1149	N13:35.16	W097:17.02	5	125	19	On	
010	002	1594	19 Oct 00	1618	N14:22.49	W097:29.19	4	73	167	On	
010	002	1635	30 Oct 00	1313	N11:58.69	W093:03.64	3	125	121	On	
010		1631	30 Oct 00	0816	N12:29.56	W092:32.99	4	73	132	On	
010		1673	3 Nov 00	1351	N06:19.76	W101:40.49	5	125	25	Off	
010	002	1696	10 Nov 00	0919	N10:11.95	W109:22.95	5	196	90	On	
010	002	1703	12 Nov 00	1725	N14:04.92	W104:13.44	2	73	92	On	
010	002	1701	12 Nov 00	1421	N14:04.60	W104:32.23	4	7	50	On	
010	002	1707	13 Nov 00	1647	N15:48.89	W101:55.54	1	73	69	On	
010	006	1722	15 Nov 00	0844	N17:50.14	W102:36.99	2	188	2	On	
010	002	1728	15 Nov 00	1523	N18:04.21	W103:26.56	4	196	26	On	
010		1735	20 Nov 00	1811	N18:17.10	W104:35.35	3	73	30	Off	
010		447	21 Nov 00	1422	N05:23.27	W084:44.26	3	91	258	On	
010	002	1749	22 Nov 00	1524	N14:58.13	W109:16.95	5	73	41	On	
010		459	23 Nov 00	1715	N05:41.21	W090:20.80	2	197	64	On	
010	002	1751	23 Nov 00	1204	N14:05.38	W111:01.95	5	199	53	On	
010		1755	24 Nov 00	0920	N12:58.50	W111:20.08	5	7	50	On	
010	002	1758	25 Nov 00	1418	N14:07.08	W114:52.43	4	188	86	On	
010	002	496	28 Nov 00	1734	N08:55.52	W104:56.27	3	126	83	On	
010	002	499	29 Nov 00	1018	N09:06.10	W107:09.32	4	126	50	On	
010	002	497	29 Nov 00	0718	N09:05.67	W106:44.20	4	197	34	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School	Ef- fort
		Number	Date	Time	Latitude	Longitude	Bft.	no.	size	
010		1782	29 Nov 00	1734	N17:58.09	W113:00.18	4	199	64	On
010 002		505	29 Nov 00	1558	N09:17.88	W107:58.53	4	91	137	On
010 002		510	30 Nov 00	1203	N10:22.34	W109:46.35	4	197	76	On
010 002		514	1 Dec 00	0912	N10:57.95	W112:21.61	4	92	65	On
010		522	3 Dec 00	1029	N16:28.83	W114:48.51	3	200	105	On
<i>Stenella longirostris (whitebelly)</i>										
011 002		25	7 Aug 00	1035	N15:37.60	W121:07.16	4	199	36	On
011		38	9 Aug 00	1748	N09:05.64	W124:47.47	2	7	10	On
011		32	9 Aug 00	1207	N09:47.54	W124:18.99	3	199	16	On
011 002		44	10 Aug 00	1354	N10:09.42	W126:55.81	2	73	180	On
011 002		40	10 Aug 00	0859	N10:00.54	W126:23.95	3	7	71	On
011 002		54	11 Aug 00	1831	N11:59.01	W129:46.23	1	199	226	On
011 002		72	12 Aug 00	1805	N13:24.82	W131:57.82	0	73	723	Off
011 002		66	12 Aug 00	1217	N12:57.95	W131:26.88	1	125	100	On
011		63	12 Aug 00	1027	N12:58.21	W131:16.82	1	196	185	On
011		69	12 Aug 00	1631	N13:12.91	W131:44.85	0	125	12	On
011 002		73	13 Aug 00	0716	N12:30.25	W132:32.24	2	196	100	On
011 002		80	13 Aug 00	1347	N11:43.80	W132:35.00	2	196	8	On
011 002		103	18 Aug 00	0816	N06:37.35	W141:02.07	4	188	131	On
011 002		105	18 Aug 00	1723	N08:04.44	W141:33.07	4	73	236	On
011 002		106	19 Aug 00	1606	N08:32.02	W144:35.54	4	188	332	On
011		112	21 Aug 00	0954	N09:50.05	W149:27.41	4	188	30	On
011 002		109	21 Aug 00	0650	N09:37.70	W149:05.04	3	188	350	On
011		111	21 Aug 00	0831	N09:44.54	W149:20.61	4	73	398	On
011 002		113	22 Aug 00	0901	N12:43.15	W150:20.61	3	188	28	On
011 002		1267	30 Aug 00	1523	N07:52.87	W116:32.35	4	91	28	On
011 002		136	6 Sep 00	1518	N06:16.87	W134:02.36	5	125	42	On
011 002		285	12 Oct 00	1616	S04:34.55	W099:50.62	4	91	362	On
011 002		1690	9 Nov 00	1604	N09:27.25	W110:55.90	5	196	81	On
011 002		1768	27 Nov 00	1356	N16:31.06	W119:22.86	4	188	585	On
<i>Stenella coeruleoalba</i>										
013		2	30 Jul 00	1827	N26:18.47	W120:18.65	4	73	161	On
013		3	30 Jul 00	1909	N26:22.64	W120:21.92	4	199	48	On
013		1029	1 Aug 00	0805	N26:44.15	W115:13.25	2	200	41	On
013 037		6	3 Aug 00	0703	N19:41.91	W123:07.74	3	188	120	On
013		1069	3 Aug 00	1728	N23:54.06	W115:26.97	3	91	17	On
013		9	5 Aug 00	1613	N20:32.16	W118:55.83	4	196	77	On
013		17	6 Aug 00	1808	N17:04.15	W120:09.91	1	196	48	On
013		13	6 Aug 00	1136	N17:50.67	W119:46.56	3	196	69	On
013		20	7 Aug 00	0652	N16:03.10	W120:48.77	3	99	34	Off
013		21	7 Aug 00	0718	N15:59.72	W120:55.13	3	196	21	On
013		1123	8 Aug 00	1527	N22:02.31	W108:39.55	2	99	27	Off
013		1113	8 Aug 00	0722	N21:35.74	W109:22.00	1	91	21	On
013 101		29	8 Aug 00	1126	N12:39.51	W122:40.98	5	73	59	On
013		1117	8 Aug 00	1004	N21:45.89	W109:02.69	1	92	47	On
013		1114	8 Aug 00	0814	N21:37.46	W109:14.11	2	200	20	On
013		1119	8 Aug 00	1156	N21:52.47	W108:51.93	1	200	45	On
013		1124	8 Aug 00	1728	N22:18.66	W108:43.66	3	126	21	On
013		35	9 Aug 00	1503	N09:29.83	W124:30.64	2	188	24	On
013		37	9 Aug 00	1701	N09:09.39	W124:44.89	2	196	65	On
013		39	10 Aug 00	0708	N09:46.54	W126:05.13	3	73	132	On
013		1173	13 Aug 00	1721	N20:09.17	W108:46.04	2	126	12	On
013		1168	13 Aug 00	0941	N20:37.61	W107:35.57	3	91	3	On
013		86	15 Aug 00	0938	N07:05.81	W135:02.60	5	188	24	On
013		88	15 Aug 00	1221	N07:03.61	W135:24.07	5	196	24	On
013		87	15 Aug 00	1019	N07:04.35	W135:04.12	5	7	4	On
013		92	16 Aug 00	0750	N06:01.09	W137:00.25	4	73	45	On
013		1200	20 Aug 00	0849	N17:20.01	W106:20.82	2	197	58	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
013		1217	20 Aug 00	1819	N17:02.25	W107:35.10	1	200	26	On	
013		1210	20 Aug 00	1509	N17:09.18	W107:07.15	0	92	24	On	
013		1201	20 Aug 00	0936	N17:22.89	W106:26.29	2	126	42	On	
013		1231	21 Aug 00	1856	N16:12.81	W110:17.57	1	200	35	On	
013		1222	21 Aug 00	1053	N16:27.77	W109:24.67	3	92	45	On	
013		1230	21 Aug 00	1758	N16:13.59	W110:08.76	1	149	22	On	
013		1221	21 Aug 00	0954	N16:32.11	W109:17.95	2	149	14	On	
013		1233	22 Aug 00	0952	N15:54.89	W111:51.30	3	91	19	On	
013		1243	22 Aug 00	1817	N15:41.54	W112:41.08	3	200	47	On	
013		1235	22 Aug 00	1222	N15:46.14	W112:09.80	3	91	28	On	
013		1253	24 Aug 00	1450	N13:57.53	W118:23.13	5	92	18	On	
013		1268	30 Aug 00	1817	N08:03.26	W116:08.16	5	149	15	On	
013		1269	31 Aug 00	0838	N08:43.48	W114:30.42	4	92	24	On	
013		1270	31 Aug 00	0951	N08:48.73	W114:18.52	5	197	37	On	
013		1272	2 Sep 00	0728	N07:27.15	W109:59.42	4	126	7	On	
013 002		1276	2 Sep 00	1204	N07:56.05	W109:27.11	5	91	22	On	
013		1280	3 Sep 00	1140	N09:57.95	W106:47.26	5	200	1	On	
013		1278	3 Sep 00	0958	N09:49.00	W106:55.24	5	92	36	On	
013		132	3 Sep 00	1333	N13:30.51	W142:57.78	5	7	25	On	
013		134	5 Sep 00	0825	N09:22.40	W137:42.54	4	73	5	On	
013		139	8 Sep 00	1141	N02:30.67	W129:35.81	4	199	111	On	
013		166	13 Sep 00	1446	S04:25.57	W118:59.91	5	188	43	On	
013		164	13 Sep 00	0813	S04:31.80	W119:53.85	6	196	20	On	
013		179	17 Sep 00	1655	N00:53.91	W110:55.17	4	125	80	On	
013		177	17 Sep 00	1330	N00:18.07	W110:58.08	4	73	153	On	
013		175	17 Sep 00	0631	S00:47.37	W111:14.26	3	199	106	On	
013		180	18 Sep 00	0719	N02:20.98	W110:25.28	4	125	80	On	
013		182	18 Sep 00	1722	N03:57.52	W110:06.28	4	199	38	On	
013		181	18 Sep 00	1028	N02:47.63	W110:22.99	2	196	14	On	
013		184	20 Sep 00	1207	N03:20.00	W105:32.92	5	188	45	On	
013		190	22 Sep 00	1002	N04:14.37	W099:40.60	3	125	233	On	
013		207	23 Sep 00	1658	N05:34.14	W095:27.44	4	125	40	On	
013		209	23 Sep 00	1801	N05:38.77	W095:17.32	4	7	34	On	
013		195	23 Sep 00	0740	N05:13.36	W096:39.05	3	125	24	On	
013		1361	23 Sep 00	1357	N09:50.73	W102:35.87	1	197	31	On	
013		194	23 Sep 00	0655	N05:13.59	W096:43.77	3	188	50	On	
013		1363	23 Sep 00	1510	N09:55.56	W102:29.94	1	92	29	On	
013		201	23 Sep 00	1234	N05:28.91	W095:53.82	3	73	108	On	
013		1384	24 Sep 00	0945	N11:15.90	W100:30.70	1	91	30	On	
013		1377	24 Sep 00	0737	N11:15.83	W100:48.01	1	92	26	On	
013		212	24 Sep 00	1558	N06:55.34	W092:52.89	5	73	87	On	
013		234	27 Sep 00	1446	N08:14.44	W088:03.98	4	199	39	On	
013 018		258	6 Oct 00	1644	N07:05.73	W086:15.66	1	149	54	Off	
013		254	6 Oct 00	1436	N07:10.37	W085:55.39	2	197	15	On	
013		263	7 Oct 00	1618	N05:50.11	W089:00.80	2	92	35	On	
013		1502	7 Oct 00	1738	N06:10.37	W081:55.44	2	188	28	Off	
013		267	8 Oct 00	1628	N04:14.31	W091:42.34	5	126	16	On	
013		1510	8 Oct 00	1651	N06:19.09	W084:38.61	3	196	40	On	
013		268	9 Oct 00	1116	N02:33.35	W093:27.57	4	200	19	On	
013		1513	9 Oct 00	0728	N07:49.49	W085:43.45	2	73	110	On	
013		1518	9 Oct 00	1425	N08:39.19	W086:22.56	3	188	59	On	
013		1512	9 Oct 00	0704	N07:42.43	W085:38.27	2	125	33	On	
013		1521	9 Oct 00	1657	N08:52.36	W086:29.87	3	188	23	On	
013		1525	10 Oct 00	1018	N10:35.61	W087:51.43	5	199	128	On	
013		274	10 Oct 00	1208	N00:30.89	W095:20.01	4	92	64	On	
013		275	10 Oct 00	1233	N00:25.18	W095:22.10	4	126	38	On	
013		1526	10 Oct 00	1115	N10:39.76	W087:53.78	5	73	49	On	
013 017		277	11 Oct 00	0740	S01:09.44	W096:47.38	2	92	59	On	
013 017		279	11 Oct 00	1428	S01:41.55	W097:10.19	4	126	15	On	
013		1539	12 Oct 00	1008	N09:26.89	W090:54.73	3	196	28	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
013		1538	12 Oct 00	0910	N09:22.63	W090:58.75	3	199	124	On	
013		1540	12 Oct 00	1029	N09:27.99	W090:53.53	4	199	62	On	
013		293	14 Oct 00	1143	S08:45.65	W103:30.92	4	149	31	On	
013		1567	15 Oct 00	1230	N08:43.04	W096:15.76	2	73	43	On	
013		1574	15 Oct 00	1451	N08:46.08	W096:32.26	2	188	27	On	
013		1564	15 Oct 00	0951	N08:37.52	W095:58.02	1	188	43	On	
013		1565	15 Oct 00	1112	N08:42.28	W096:05.90	2	188	32	On	
013		1562	15 Oct 00	0840	N08:42.97	W095:52.81	1	196	51	On	
013		1578	15 Oct 00	1727	N08:39.34	W096:50.22	3	188	2	On	
013		1569	15 Oct 00	1303	N08:42.91	W096:20.17	2	199	93	On	
013		1582	16 Oct 00	0909	N08:41.50	W099:00.44	4	188	33	On	
013		1583	16 Oct 00	1013	N08:43.15	W099:08.98	4	188	51	On	
013		1586	17 Oct 00	0854	N10:02.31	W100:10.49	5	125	40	On	
013		1643	31 Oct 00	1039	N10:01.55	W094:55.90	2	188	98	On	
013		1659	1 Nov 00	1723	N08:02.51	W097:26.93	3	196	46	On	
013		1658	1 Nov 00	1651	N08:03.64	W097:19.01	3	7	37	On	
013		1653	1 Nov 00	0807	N08:50.88	W096:42.57	3	73	51	On	
013		1664	2 Nov 00	1211	N06:45.97	W099:08.08	2	73	85	On	
013		1661	2 Nov 00	0630	N07:12.79	W098:28.94	3	188	98	On	
013		1671	3 Nov 00	1220	N06:19.50	W101:32.97	5	199	33	On	
013		1678	4 Nov 00	1734	N06:23.05	W105:10.00	4	188	13	On	
013		1675	4 Nov 00	0850	N06:22.13	W103:52.21	4	188	13	On	
013		1679	4 Nov 00	1820	N06:26.15	W105:12.94	4	199	14	On	
013		1676	4 Nov 00	0926	N06:22.51	W103:57.81	4	188	19	On	
013		380	6 Nov 00	1110	S00:37.19	W083:29.55	4	149	80	On	
013		383	6 Nov 00	1630	S00:18.73	W083:09.86	3	126	13	On	
013		385	7 Nov 00	0637	S00:58.88	W081:35.67	3	126	24	On	
013		398	8 Nov 00	1235	N01:34.12	W081:59.89	5	149	18	On	
013		396	8 Nov 00	0835	N00:58.19	W081:52.49	4	149	19	On	
013		1682	8 Nov 00	0850	N07:15.95	W114:09.62	5	73	26	On	
013		1683	8 Nov 00	1405	N07:46.93	W113:28.47	5	188	18	On	
013		395	8 Nov 00	0651	N00:48.56	W081:39.23	4	92	32	On	
013		400	8 Nov 00	1612	N02:04.19	W081:39.81	5	91	13	On	
013		399	8 Nov 00	1352	N01:44.18	W081:51.94	5	149	32	On	
013		1686	9 Nov 00	1018	N08:50.76	W111:32.93	5	7	27	On	
013		401	9 Nov 00	0818	N01:44.07	W080:17.41	5	92	15	On	
013		439	20 Nov 00	1008	N05:10.94	W080:42.66	4	91	19	On	
013		445	21 Nov 00	0836	N05:19.86	W083:42.13	4	197	19	On	
013		446	21 Nov 00	0859	N05:22.87	W083:44.96	4	92	49	On	
013		1741	21 Nov 00	1810	N16:06.16	W106:32.13	3	199	41	On	
013		1745	22 Nov 00	0734	N15:18.59	W108:04.21	4	188	51	On	
013		1744	22 Nov 00	0705	N15:21.45	W107:59.62	4	125	18	On	
013		455	23 Nov 00	1059	N05:40.16	W089:25.09	3	126	55	On	
013		466	24 Nov 00	1653	N05:46.74	W093:25.87	3	91	8	On	
013		1756	24 Nov 00	1244	N13:14.39	W111:45.80	4	73	65	Off	
013		1754	24 Nov 00	0658	N12:50.05	W110:57.97	4	188	1	On	
013		472	25 Nov 00	1007	N06:15.44	W095:16.91	2	126	30	On	
013	021	470	25 Nov 00	0905	N06:09.00	W095:10.93	2	149	50	On	
013		474	25 Nov 00	1141	N06:17.98	W095:26.06	2	149	41	On	
013		475	25 Nov 00	1550	N06:39.53	W096:03.61	2	91	59	On	
013		479	26 Nov 00	1209	N07:29.48	W098:11.37	4	200	44	On	
013		480	26 Nov 00	1321	N07:26.43	W098:25.80	4	92	24	On	
013		1764	26 Nov 00	0836	N14:53.94	W116:48.15	4	188	13	On	
013		1762	26 Nov 00	0738	N14:51.84	W116:34.28	4	199	1	On	
013		481	26 Nov 00	1415	N07:24.73	W098:31.94	3	126	90	On	
013		483	26 Nov 00	1720	N07:26.32	W099:02.10	4	126	43	On	
013		484	26 Nov 00	1748	N07:31.72	W099:07.50	4	126	13	On	
013		489	27 Nov 00	1214	N08:01.08	W101:21.92	4	149	38	On	
013		491	27 Nov 00	1739	N08:12.72	W101:55.30	3	91	21	On	
013		487	27 Nov 00	1029	N07:52.74	W101:08.85	3	197	13	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School no.	Ef- size	fort
		Number	Date	Time	Latitude	Longitude	Bft.				
013		490	27 Nov 00	1625	N08:14.36	W101:47.61	3	126	12	On	
013		1771	28 Nov 00	0921	N16:51.92	W117:22.14	3	125	33	On	
013		495	28 Nov 00	1315	N08:48.08	W104:11.64	3	126	15	On	
013		493	28 Nov 00	1140	N08:45.66	W103:57.26	3	197	19	On	
013		504	29 Nov 00	1446	N09:15.60	W107:47.47	4	126	22	On	
013		1784	30 Nov 00	0747	N18:21.47	W111:07.02	4	199	25	On	
013		512	30 Nov 00	1307	N10:21.82	W109:57.41	4	92	17	On	
013		1789	1 Dec 00	1735	N19:46.26	W110:51.69	3	7	47	On	
013		516	2 Dec 00	0806	N13:54.61	W113:09.10	4	92	25	On	
013		521	3 Dec 00	0809	N16:08.56	W114:38.01	3	126	19	On	
013		1795	3 Dec 00	1141	N19:00.10	W116:13.50	1	7	10	On	
013		1803	4 Dec 00	0812	N20:33.61	W117:22.83	2	196	163	On	
013		528	4 Dec 00	0908	N19:37.97	W114:41.48	3	91	72	On	
013		1806	4 Dec 00	1729	N21:34.24	W117:38.69	2	73	258	On	
013		529	4 Dec 00	0956	N19:45.49	W114:41.97	3	200	41	On	
013		533	4 Dec 00	1143	N19:59.96	W114:37.05	3	126	44	On	
013		535	4 Dec 00	1432	N20:24.40	W114:25.20	3	91	25	On	
013 017		536	4 Dec 00	1604	N20:44.66	W114:18.42	3	126	4	On	
<i>Steno bredanensis</i>											
015 018		1068	3 Aug 00	1607	N24:03.88	W115:22.02	3	126	25	On	
015		28	7 Aug 00	1531	N15:06.33	W121:26.98	4	73	7	Off	
015 018		1161	12 Aug 00	1523	N20:55.73	W106:07.55	1	126	36	On	
015 018		83	14 Aug 00	0836	N09:21.96	W133:06.64	4	125	57	On	
015		89	15 Aug 00	1355	N06:54.42	W135:30.49	5	188	13	On	
015		97	16 Aug 00	1847	N05:08.71	W138:03.57	4	73	8	On	
015 090		1193	19 Aug 00	1601	N18:39.58	W104:52.62	3	197	17	Off	
015 018		1202	20 Aug 00	1110	N17:15.89	W106:39.08	0	92	4	On	
015 002		1198	20 Aug 00	0705	N17:27.69	W106:04.41	2	200	4	On	
015		1226	21 Aug 00	1416	N16:21.31	W109:40.81	3	149	14	On	
015 018		1249	23 Aug 00	1328	N14:50.21	W114:52.18	5	92	21	On	
015		1250	23 Aug 00	1711	N14:40.05	W115:22.46	4	149	6	On	
015		1281	3 Sep 00	1203	N09:58.87	W106:41.87	5	126	10	On	
015		1315	7 Sep 00	1848	N16:34.60	W099:37.74	3	149	14	On	
015		149	10 Sep 00	1455	S02:29.71	W126:10.77	5	7	2	On	
015 076		1482	6 Oct 00	1537	N07:51.04	W082:28.87	3	73	10	On	
015 077		286	12 Oct 00	1741	S04:41.90	W099:59.30	4	92	9	On	
015 018		1549	13 Oct 00	1424	N10:44.24	W092:05.72	4	188	5	On	
015 021 018		1555	14 Oct 00	1341	N09:01.43	W093:59.43	1	196	17	On	
015		1599	20 Oct 00	1016	N15:49.58	W097:36.73	2	7	6	Off	
015 018		1638	30 Oct 00	1647	N11:41.95	W093:22.68	3	125	6	On	
015		1665	2 Nov 00	1544	N06:31.39	W099:28.27	2	125	35	On	
015		1674	4 Nov 00	0722	N06:23.63	W103:39.72	2	7	6	On	
015		1681	7 Nov 00	1800	N06:15.69	W114:14.36	5	73	18	On	
015		417	13 Nov 00	0719	N07:08.00	W078:19.35	1	197	33	On	
015		1705	13 Nov 00	1301	N15:22.64	W102:25.75	3	73	3	On	
015		1719	14 Nov 00	1500	N17:12.67	W101:13.25	2	188	13	On	
015		1708	14 Nov 00	0721	N16:32.30	W100:35.90	0	199	3	On	
015		1710	14 Nov 00	0750	N16:32.94	W100:36.74	0	125	3	On	
015		1715	14 Nov 00	1116	N16:46.41	W100:54.96	1	73	9	On	
015		1727	15 Nov 00	1355	N18:03.48	W103:11.90	4	7	6	On	
015		1772	28 Nov 00	1020	N17:00.67	W117:14.55	3	196	15	On	
015		523	3 Dec 00	1234	N16:45.82	W114:52.62	4	149	9	On	
<i>Delphinus capensis</i>											
016		1056	2 Aug 00	1122	N25:05.89	W112:47.81	3	126	153	On	
016		1055	2 Aug 00	0959	N25:17.36	W112:52.68	3	92	123	On	
016 025		332	30 Oct 00	1521	S08:56.83	W079:02.08	2	149	1128	On	
016		329	30 Oct 00	1140	S09:26.98	W079:03.78	2	99	1566	Off	
016		337	31 Oct 00	1030	S08:20.36	W079:19.83	3	126	333	On	

Table 2. Marine mammal sightings (continued)

Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School size	Ef- fort
016		335	31 Oct 00	0743	S08:21.81	W079:06.50	3	126	397	On
016		336	31 Oct 00	1010	S08:15.46	W079:16.23	3	92	11	On
016		338	31 Oct 00	1250	S08:19.05	W079:42.09	4	197	823	On
016		334	31 Oct 00	0607	S08:36.96	W079:09.64	3	92	300	On
016		359	3 Nov 00	0818	S06:40.90	W080:39.48	1	149	580	Off
016		569	8 Dec 00	0911	N30:34.12	W116:14.00	5	197	128	On
<i>Delphinus delphis</i>										
017		1003	29 Jul 00	1705	N31:44.36	W116:57.01	3	92	262	On
017		1004	29 Jul 00	1740	N31:37.60	W116:55.49	3	4	192	On
017		1005	29 Jul 00	1804	N31:32.80	W116:55.56	3	92	1700	On
017		1019	30 Jul 00	1620	N29:29.91	W115:54.70	3	92	65	On
017		1016	30 Jul 00	1511	N29:31.00	W115:55.65	3	126	363	On
017		1009	30 Jul 00	0908	N29:43.40	W115:53.65	2	126	407	On
017		1012	30 Jul 00	1036	N29:40.63	W115:53.65	2	91	40	Off
017		1030	1 Aug 00	0839	N26:46.60	W115:11.77	2	200	12	On
017		1041	1 Aug 00	1302	N26:53.89	W114:38.54	1	197	71	On
017		1053	2 Aug 00	0914	N25:21.79	W112:55.97	3	200	81	On
017		1076	5 Aug 00	1036	N22:41.40	W115:32.41	3	197	47	On
017		1077	5 Aug 00	1228	N22:46.47	W115:09.97	3	92	166	On
017		1075	5 Aug 00	0839	N22:32.52	W115:43.77	3	126	54	On
017		1078	5 Aug 00	1302	N22:46.63	W115:06.84	3	126	489	On
017		1074	5 Aug 00	0747	N22:30.71	W115:47.13	2	92	45	On
017		1080	6 Aug 00	0725	N23:34.24	W112:59.75	4	91	114	On
017		1097	6 Aug 00	1542	N24:04.56	W111:58.13	2	126	207	On
017		1086	6 Aug 00	1208	N23:51.07	W112:26.63	4	126	71	On
017		1079	6 Aug 00	0653	N23:34.02	W112:59.62	3	91	342	On
017 002		1125	9 Aug 00	0956	N24:09.55	W109:30.76	5	126	364	On
017		1129	9 Aug 00	1529	N24:52.36	W109:45.98	3	92	213	On
017		48	11 Aug 00	0720	N11:10.26	W128:35.57	3	196	84	On
017		1156	12 Aug 00	1125	N21:15.83	W106:33.90	3	92	182	On
017		1153	12 Aug 00	0749	N21:40.90	W106:49.59	4	126	42	On
017		213	24 Sep 00	1725	N07:03.51	W092:39.28	5	7	341	On
017		217	26 Sep 00	1103	N07:43.50	W090:01.84	5	188	333	On
017		218	26 Sep 00	1329	N07:39.81	W089:41.10	5	188	245	On
017		216	26 Sep 00	0757	N07:27.61	W090:34.05	6	199	76	On
017		235	27 Sep 00	1633	N08:31.75	W087:47.47	4	199	350	On
017		239	28 Sep 00	1622	N08:55.19	W085:36.05	5	196	228	On
017		249	6 Oct 00	1051	N07:25.74	W085:21.24	2	197	78	On
017		245	6 Oct 00	0621	N07:42.55	W084:41.04	2	126	113	On
017		264	7 Oct 00	1658	N05:48.83	W089:08.43	2	126	237	On
017		1500	7 Oct 00	1239	N06:40.50	W081:43.69	3	196	113	On
017		1507	8 Oct 00	1236	N06:24.31	W084:10.95	2	196	227	On
017		1509	8 Oct 00	1417	N06:21.43	W084:17.63	3	7	278	On
017		1515	9 Oct 00	0950	N08:05.76	W085:56.02	4	7	426	On
017		1519	9 Oct 00	1453	N08:40.45	W086:17.99	1	125	425	On
017		1522	9 Oct 00	1723	N08:54.91	W086:32.45	3	125	323	On
017		1530	10 Oct 00	1835	N11:42.08	W088:43.82	2	125	68	On
017 013		277	11 Oct 00	0740	S01:09.44	W096:47.38	2	92	142	On
017 013		279	11 Oct 00	1428	S01:41.55	W097:10.19	4	126	385	On
017		282	11 Oct 00	1805	S02:07.16	W097:34.26	4	92	280	On
017		281	11 Oct 00	1555	S01:45.66	W097:14.20	4	91	14	On
017		304	20 Oct 00	1619	S10:19.53	W089:02.83	4	126	41	On
017		1595	20 Oct 00	0743	N15:52.63	W097:43.49	1	73	425	On
017		302	20 Oct 00	1022	S09:52.30	W089:53.08	4	197	332	On
017		1608	20 Oct 00	1749	N15:29.84	W096:41.99	1	199	164	On
017		303	20 Oct 00	1335	S10:08.63	W089:26.97	5	126	230	On
017		1602	20 Oct 00	1151	N15:44.11	W097:29.73	2	188	101	On
017		313	23 Oct 00	0709	S12:21.51	W082:43.48	5	91	202	On
017		314	23 Oct 00	0800	S12:19.90	W082:39.67	5	200	14	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School no.	Ef- size	fort
		Number	Date	Time	Latitude	Longitude	Bft.				
017		1629	30 Oct 00	0718	N12:32.11	W092:29.26	4	196	126	On	
017	077	1646	31 Oct 00	1534	N09:53.70	W095:27.93	3	73	43	On	
017		1649	1 Nov 00	0614	N08:53.58	W096:28.40	2	125	66	On	
017		346	1 Nov 00	0816	S08:49.75	W081:50.16	3	197	623	On	
017		1652	1 Nov 00	0711	N08:50.34	W096:37.36	2	188	19	Off	
017		1650	1 Nov 00	0638	N08:53.58	W096:31.40	2	125	28	On	
017		1654	1 Nov 00	1051	N08:31.86	W096:59.58	3	73	33	On	
017		364	4 Nov 00	0641	S04:54.92	W081:23.50	2	91	560	On	
017		367	4 Nov 00	1243	S04:13.41	W081:14.60	5	92	393	On	
017		368	4 Nov 00	1342	S04:01.31	W081:16.93	5	91	1153	On	
017		376	5 Nov 00	1357	S02:05.45	W082:08.73	4	197	248	On	
017		374	5 Nov 00	1129	S02:14.04	W081:50.73	4	149	146	On	
017		375	5 Nov 00	1245	S02:07.10	W081:58.10	4	126	365	On	
017		377	6 Nov 00	0656	S01:12.16	W083:42.37	3	92	173	On	
017		378	6 Nov 00	0823	S01:04.00	W083:37.14	3	126	131	On	
017		389	7 Nov 00	0909	S00:58.84	W081:17.82	3	149	1025	On	
017		415	12 Nov 00	1716	N06:30.76	W077:42.42	3	200	367	On	
017		413	12 Nov 00	1205	N05:58.20	W077:45.19	2	91	45	On	
017		1720	15 Nov 00	0734	N17:47.83	W102:23.70	2	73	131	On	
017		1726	15 Nov 00	1302	N17:54.54	W103:04.64	4	188	100	On	
017		477	26 Nov 00	0913	N07:29.29	W097:59.53	3	92	79	On	
017		515	1 Dec 00	1041	N11:05.18	W112:25.66	4	92	76	On	
017		1793	2 Dec 00	1718	N20:09.52	W113:53.35	3	188	24	Off	
017	013	536	4 Dec 00	1604	N20:44.66	W114:18.42	3	126	247	On	
017		550	5 Dec 00	1408	N23:05.83	W113:25.67	2	149	202	On	
017		539	5 Dec 00	0856	N22:24.98	W113:18.86	3	200	158	On	
017		561	6 Dec 00	1639	N25:59.45	W115:07.21	4	197	1225	On	
017		1813	6 Dec 00	1011	N26:34.56	W118:52.96	0	199	38	On	
017		558	6 Dec 00	0748	N25:05.52	W113:51.43	3	126	189	On	
017		1816	6 Dec 00	1404	N27:06.38	W118:38.62	3	199	13	On	
017		1815	6 Dec 00	1049	N26:38.57	W118:48.50	1	196	55	On	
017		1811	6 Dec 00	0907	N26:27.36	W118:55.85	0	125	72	On	
017		1814	6 Dec 00	1032	N26:34.30	W118:51.81	1	199	50	On	
017		564	7 Dec 00	1239	N28:15.72	W116:25.94	4	149	32	On	
017		1822	8 Dec 00	1130	N31:38.52	W116:46.55	3	73	385	On	
<i>Tursiops truncatus</i>											
018		1060	2 Aug 00	1444	N24:50.87	W112:35.56	4	91	19	On	
018		1065	2 Aug 00	1651	N24:44.02	W112:30.26	4	126	59	On	
018		1066	2 Aug 00	1722	N24:42.27	W112:25.88	4	92	40	On	
018		1059	2 Aug 00	1410	N24:52.56	W112:38.57	4	92	11	On	
018		1058	2 Aug 00	1349	N24:57.29	W112:38.85	4	99	8	Off	
018		1057	2 Aug 00	1214	N25:06.79	W112:45.48	3	197	11	On	
018		1062	2 Aug 00	1505	N24:49.74	W112:33.64	4	91	17	Off	
018		1064	2 Aug 00	1646	N24:45.43	W112:33.55	4	197	11	On	
018	015	1068	3 Aug 00	1607	N24:03.88	W115:22.02	3	126	4	On	
018		10	5 Aug 00	1631	N20:33.36	W118:54.52	4	7	2	Off	
018		1094	6 Aug 00	1448	N24:01.06	W112:08.00	1	92	19	On	
018		1102	6 Aug 00	1755	N24:04.74	W111:43.35	3	126	28	On	
018		14	6 Aug 00	1344	N17:34.05	W119:57.06	2	73	18	On	
018		1096	6 Aug 00	1507	N23:59.29	W112:07.59	2	126	10	On	
018		1092	6 Aug 00	1432	N23:58.46	W112:11.56	1	126	10	On	
018		1103	6 Aug 00	1758	N24:03.88	W111:47.53	3	197	17	On	
018		1100	6 Aug 00	1707	N24:04.72	W111:48.93	3	4	80	On	
018		23	7 Aug 00	0928	N15:42.90	W121:00.48	3	196	12	On	
018		1111	7 Aug 00	1211	N22:51.37	W110:36.82	5	200	45	On	
018	077	30	9 Aug 00	0728	N10:28.07	W123:54.91	4	73	6	On	
018		1137	10 Aug 00	1354	N24:07.03	W107:40.46	1	91	4	On	
018		1133	10 Aug 00	1006	N24:29.44	W108:08.58	3	126	11	On	
018		1135	10 Aug 00	1059	N24:29.93	W107:57.85	3	197	3	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
018		1134	10 Aug 00	1046	N24:28.11	W108:01.85	3	91	3	On	
018		46	10 Aug 00	1749	N10:35.31	W127:19.14	3	188	23	On	
018		47	10 Aug 00	1819	N10:36.89	W127:23.93	3	199	60	On	
018		1146	11 Aug 00	1155	N23:04.16	W107:12.46	3	197	61	On	
018		1147	11 Aug 00	1439	N22:41.34	W107:13.92	3	92	93	On	
018 036		49	11 Aug 00	1010	N11:28.81	W128:50.14	3	125	31	On	
018 033 077		52	11 Aug 00	1643	N11:53.45	W129:30.28	1	7	39	On	
018		62	12 Aug 00	1012	N12:53.01	W131:12.04	1	73	9	On	
018 036 021		64	12 Aug 00	1037	N12:56.67	W131:20.03	1	196	8	On	
018 015		1161	12 Aug 00	1523	N20:55.73	W106:07.55	1	126	16	On	
018 021		60	12 Aug 00	0841	N12:48.03	W131:04.31	0	73	4	On	
018		1171	13 Aug 00	1259	N20:28.01	W108:02.16	3	4	6	Off	
018 015		83	14 Aug 00	0836	N09:21.96	W133:06.64	4	125	31	On	
018 036 065		90	15 Aug 00	1445	N06:52.83	W135:32.57	5	73	6	On	
018		1183	15 Aug 00	1142	N19:53.33	W105:40.99	1	92	4	On	
018 015		1202	20 Aug 00	1110	N17:15.89	W106:39.08	0	92	12	On	
018		1229	21 Aug 00	1703	N16:16.67	W110:01.24	1	197	23	On	
018		1237	22 Aug 00	1352	N15:43.12	W112:24.46	3	91	14	On	
018		1238	22 Aug 00	1537	N15:45.34	W112:32.27	3	92	1	On	
018 015		1249	23 Aug 00	1328	N14:50.21	W114:52.18	5	92	1	On	
018		119	24 Aug 00	0802	N19:05.88	W156:02.41	3	188	7	On	
018		120	24 Aug 00	0827	N19:08.89	W156:02.51	2	73	1	On	
018 002 003		123	24 Aug 00	1138	N19:20.85	W156:04.04	2	196	36	On	
018		124	24 Aug 00	1505	N19:52.50	W156:12.59	3	196	9	On	
018 002 010		1296	5 Sep 00	1205	N12:58.52	W101:26.42	2	200	4	On	
018		1304	6 Sep 00	1827	N14:33.00	W098:42.00	3	99	10	Off	
018 005		1324	12 Sep 00	1714	N17:05.06	W100:51.63	3	126	5	On	
018 010 002		1326	13 Sep 00	0940	N16:41.82	W102:24.28	5	197	2	On	
018 077		1337	15 Sep 00	0941	N13:34.60	W106:54.09	3	92	12	On	
018 036		174	15 Sep 00	1517	S04:02.88	W113:19.08	5	199	12	On	
018 077		1376	24 Sep 00	0718	N11:09.96	W100:56.99	1	92	17	On	
018		1414	25 Sep 00	1820	N12:32.05	W096:40.43	3	92	15	On	
018		1401	25 Sep 00	0840	N12:21.32	W097:54.38	3	4	2	Off	
018 002 010		1399	25 Sep 00	0726	N12:18.42	W097:54.01	3	197	6	On	
018		222	26 Sep 00	1612	N07:49.39	W089:20.33	5	99	3	Off	
018		221	26 Sep 00	1558	N07:48.74	W089:23.66	5	99	7	Off	
018		219	26 Sep 00	1445	N07:44.85	W089:34.93	5	125	380	On	
018		1430	27 Sep 00	1559	N13:30.53	W091:23.18	4	200	27	On	
018		1433	27 Sep 00	1709	N13:29.74	W091:12.57	4	120	15	Off	
018		1432	27 Sep 00	1700	N13:30.05	W091:13.86	4	197	7	Off	
018		1434	27 Sep 00	1715	N13:29.55	W091:11.53	4	91	7	On	
018		1426	27 Sep 00	1414	N13:35.41	W091:38.71	4	126	11	On	
018 036		225	27 Sep 00	0726	N07:17.93	W088:30.18	4	73	14	On	
018		230	27 Sep 00	1310	N08:04.38	W088:07.83	4	196	14	On	
018		231	27 Sep 00	1344	N08:05.79	W088:07.69	4	188	3	On	
018		1418	27 Sep 00	0727	N13:31.55	W092:29.30	3	200	12	On	
018		1419	27 Sep 00	0859	N13:32.07	W092:18.63	4	92	13	On	
018		1424	27 Sep 00	1303	N13:38.66	W091:46.26	4	120	750	Off	
018		1427	27 Sep 00	1450	N13:33.97	W091:33.54	4	126	4	On	
018		1428	27 Sep 00	1456	N13:32.02	W091:29.57	4	126	3	On	
018		1429	27 Sep 00	1550	N13:31.81	W091:24.41	4	145	3	Off	
018		1431	27 Sep 00	1634	N13:30.89	W091:14.69	4	92	33	On	
018		1435	27 Sep 00	1727	N13:32.03	W091:08.88	3	126	16	On	
018		1425	27 Sep 00	1335	N13:36.84	W091:43.36	4	197	353	On	
018		1440	28 Sep 00	0945	N12:54.23	W089:07.69	3	126	10	On	
018		1445	28 Sep 00	1734	N12:46.35	W088:04.79	5	91	10	On	
018		236	28 Sep 00	1020	N08:29.65	W086:34.40	5	125	1	On	
018		238	28 Sep 00	1231	N08:42.43	W086:15.38	5	196	5	On	
018		1448	30 Sep 00	0702	N10:25.58	W086:14.94	4	149	143	On	
018 006		1453	30 Sep 00	1018	N10:05.42	W085:53.15	4	92	4	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School	Ef- fort
		Number	Date	Time	Latitude	Longitude	Bft.	no.	size	
018	006	1455	30 Sep 00	1118	N10:00.10	W085:50.28	3	126	1	On
018		1458	30 Sep 00	1243	N09:51.66	W085:44.27	3	200	48	On
018	006	1461	30 Sep 00	1338	N09:47.03	W085:38.11	3	149	8	On
018		1463	30 Sep 00	1701	N09:25.04	W085:15.94	4	92	7	On
018		1449	30 Sep 00	0741	N10:21.83	W086:12.41	4	92	109	On
018		1451	30 Sep 00	0918	N10:08.75	W086:08.25	3	197	5	Off
018		1447	30 Sep 00	0658	N10:28.33	W086:14.44	4	92	42	On
018		1450	30 Sep 00	0815	N10:16.09	W086:07.99	3	91	56	On
018	006	1460	30 Sep 00	1310	N09:49.54	W085:42.38	3	91	4	On
018	036	246	6 Oct 00	0736	N07:35.23	W084:52.68	2	149	54	On
018		252	6 Oct 00	1344	N07:14.99	W085:47.04	2	126	88	On
018	036	256	6 Oct 00	1603	N07:07.25	W086:06.28	2	200	32	On
018	013	258	6 Oct 00	1644	N07:05.73	W086:15.66	1	149	25	Off
018		1485	6 Oct 00	1729	N07:47.26	W082:17.33	4	196	3	On
018		1489	7 Oct 00	0616	N07:30.10	W081:22.50	1	188	2	On
018	036	1497	7 Oct 00	1053	N06:52.79	W081:38.89	3	73	18	On
018	021	259	7 Oct 00	0757	N06:21.00	W087:43.86	2	149	48	On
018		262	7 Oct 00	1530	N06:01.01	W088:57.44	2	91	22	On
018		1505	8 Oct 00	0946	N06:12.42	W083:43.96	4	7	2	On
018		1506	8 Oct 00	1028	N06:12.06	W083:50.66	4	125	4	On
018		1516	9 Oct 00	1052	N08:09.27	W085:58.40	4	125	9	On
018	036	271	10 Oct 00	0805	N00:50.51	W094:57.34	5	197	15	On
018	034	276	10 Oct 00	1830	S00:02.66	W095:42.33	3	200	35	On
018		1531	11 Oct 00	0754	N10:36.12	W089:34.48	4	196	27	On
018	021	1541	12 Oct 00	1359	N09:45.76	W090:58.49	4	73	71	On
018	034	287	12 Oct 00	1809	S04:44.46	W100:02.19	4	92	17	On
018		1547	13 Oct 00	1210	N10:56.88	W092:02.66	4	196	22	On
018	002 010	1550	13 Oct 00	1525	N10:43.46	W092:14.67	3	188	9	On
018	015	1549	13 Oct 00	1424	N10:44.24	W092:05.72	4	188	30	On
018	021 015	1555	14 Oct 00	1341	N09:01.43	W093:59.43	1	196	7	On
018	002	1584	16 Oct 00	1659	N08:44.70	W100:13.06	4	196	3	On
018	090	1604	20 Oct 00	1512	N15:40.64	W097:01.28	2	7	36	On
018		1610	21 Oct 00	1734	N15:08.60	W093:55.49	3	196	21	On
018		1625	22 Oct 00	1727	N13:47.29	W091:44.10	2	125	6	On
018		1612	22 Oct 00	0909	N14:24.46	W092:18.02	3	188	3	On
018		1614	22 Oct 00	1122	N14:13.12	W092:13.38	2	125	3	On
018		1620	22 Oct 00	1525	N13:54.22	W091:57.90	1	73	6	On
018		1621	22 Oct 00	1528	N13:54.99	W091:51.69	1	73	1	On
018		1619	22 Oct 00	1429	N14:03.88	W091:53.34	1	73	4	On
018		310	22 Oct 00	1004	S12:18.25	W085:08.14	5	92	11	On
018	034	311	22 Oct 00	1638	S12:19.45	W084:00.59	5	200	2	On
018		318	23 Oct 00	1554	S12:28.35	W081:37.87	4	200	16	On
018	034	316	23 Oct 00	1207	S12:24.35	W082:18.01	5	149	1	On
018	037 034	315	23 Oct 00	0935	S12:22.48	W082:25.74	5	92	26	On
018	PU	326	29 Oct 00	1731	S11:12.71	W077:54.17	2	126	25	On
018	021	1637	30 Oct 00	1507	N11:45.45	W093:14.95	4	188	75	On
018	015	1638	30 Oct 00	1647	N11:41.95	W093:22.68	3	125	11	On
018		1639	31 Oct 00	0724	N10:26.16	W094:38.79	3	188	22	On
018		348	1 Nov 00	1012	S08:54.16	W082:10.25	3	149	11	On
018	021	353	2 Nov 00	1140	S07:03.78	W082:03.73	3	200	30	On
018		352	2 Nov 00	0942	S07:07.47	W082:25.33	4	99	22	Off
018	034	386	7 Nov 00	0707	S00:56.49	W081:34.92	3	197	73	On
018		387	7 Nov 00	0757	S00:58.56	W081:31.31	3	126	4	On
018	034	391	7 Nov 00	1029	S00:57.30	W081:10.64	3	126	15	On
018	021	393	7 Nov 00	1119	S00:57.20	W081:03.95	3	92	3	On
018	002	1691	9 Nov 00	1710	N09:29.07	W110:48.14	5	199	4	On
018		1697	10 Nov 00	1046	N10:18.74	W109:14.94	6	73	15	Off
018	033	1714	14 Nov 00	0933	N16:38.73	W100:44.63	0	196	19	On
018	033	1711	14 Nov 00	0806	N16:32.61	W100:40.20	0	196	15	On
018	033	1712	14 Nov 00	0906	N16:32.43	W100:47.15	0	7	25	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Effort size	Effort fort
018		1723	15 Nov 00	0939	N17:47.21	W102:42.17	2	125	9	On	
018		1730	15 Nov 00	1756	N18:08.99	W103:32.73	5	4	4	Off	
018		435	18 Nov 00	1727	N07:58.28	W079:36.88	3	149	7	On	
018		452	22 Nov 00	0713	N05:31.42	W086:38.72	3	98	4	Off	
018	021	454	23 Nov 00	0939	N05:40.83	W089:09.02	2	91	12	On	
018	036	461	23 Nov 00	1735	N05:42.22	W090:25.25	2	91	72	On	
018		1753	23 Nov 00	1639	N13:56.24	W111:32.59	5	99	2	Off	
018		463	24 Nov 00	1030	N05:46.31	W092:29.05	3	92	9	On	
018	036	468	25 Nov 00	0639	N06:00.96	W094:53.33	2	126	69	On	
018		1775	28 Nov 00	1246	N17:02.76	W116:55.21	4	188	20	On	
018		1779	29 Nov 00	0757	N17:39.43	W114:25.65	3	188	7	On	
018		507	30 Nov 00	0614	N10:19.30	W109:12.24	4	126	32	Off	
018		508	30 Nov 00	0943	N10:20.26	W109:21.97	4	92	9	On	
018		509	30 Nov 00	1045	N10:21.05	W109:35.07	4	92	57	On	
018		1786	1 Dec 00	1523	N19:22.85	W110:45.15	3	73	33	On	
018		1791	2 Dec 00	0844	N20:34.54	W112:32.38	4	196	22	On	
018		1792	2 Dec 00	1025	N20:31.40	W112:45.63	4	73	8	On	
018		1797	3 Dec 00	1213	N19:00.31	W116:15.47	2	188	8	On	
018	077	527	4 Dec 00	0737	N19:29.00	W114:39.85	2	92	16	On	
018		1818	6 Dec 00	1447	N27:17.48	W118:37.23	3	188	71	On	
<i>Grampus griseus</i>											
021		1	29 Jul 00	1657	N29:41.91	W119:18.55	4	99	5	Off	
021		8	5 Aug 00	1527	N20:43.32	W118:49.64	4	73	8	Off	
021		1083	6 Aug 00	1027	N23:42.47	W112:40.06	4	92	7	On	
021		1128	9 Aug 00	1414	N24:37.92	W109:39.35	3	91	6	On	
021		1131	9 Aug 00	1909	N25:08.51	W109:51.33	2	92	75	On	
021		1126	9 Aug 00	1236	N24:27.38	W109:32.56	4	92	7	On	
021		51	11 Aug 00	1324	N11:40.21	W128:59.00	2	188	100	On	
021	018	60	12 Aug 00	0841	N12:48.03	W131:04.31	0	73	78	On	
021		1166	12 Aug 00	1833	N20:46.75	W105:52.56	1	92	8	On	
021	036 018	64	12 Aug 00	1037	N12:56.67	W131:20.03	1	196	18	On	
021		81	13 Aug 00	1706	N11:12.02	W132:39.10	2	188	6	On	
021		1170	13 Aug 00	1242	N20:25.18	W108:02.61	3	200	4	On	
021		95	16 Aug 00	1725	N05:11.27	W138:00.06	4	196	5	On	
021	077	1209	20 Aug 00	1316	N17:11.58	W106:56.85	0	91	2	On	
021		1220	21 Aug 00	0923	N16:34.06	W109:15.26	2	197	4	On	
021		115	22 Aug 00	1521	N13:37.53	W151:00.28	3	196	3	On	
021		114	22 Aug 00	1119	N12:58.37	W150:30.70	3	99	4	Off	
021		1302	6 Sep 00	1100	N13:38.16	W099:09.82	3	92	39	On	
021		137	8 Sep 00	0934	N02:39.18	W129:48.13	4	196	6	On	
021		138	8 Sep 00	1024	N02:30.82	W129:43.42	1	7	89	On	
021		153	11 Sep 00	1020	S04:44.61	W125:54.10	5	99	5	Off	
021		1327	13 Sep 00	1626	N16:05.83	W103:12.83	4	91	5	On	
021	077	1370	23 Sep 00	1819	N10:12.99	W102:07.73	1	149	6	On	
021		1422	27 Sep 00	1033	N13:33.73	W092:06.50	4	126	5	On	
021	018	259	7 Oct 00	0757	N06:21.00	W087:43.86	2	149	7	On	
021		260	7 Oct 00	1055	N06:11.04	W088:08.45	2	200	11	On	
021		266	8 Oct 00	1520	N04:30.11	W091:33.82	4	99	5	Off	
021	018	1541	12 Oct 00	1359	N09:45.76	W090:58.49	4	73	27	On	
021	015 018	1555	14 Oct 00	1341	N09:01.43	W093:59.43	1	196	114	On	
021		297	17 Oct 00	1451	S09:39.30	W096:57.62	5	92	12	On	
021	018	1637	30 Oct 00	1507	N11:45.45	W093:14.95	4	188	40	On	
021	018	353	2 Nov 00	1140	S07:03.78	W082:03.73	3	200	66	On	
021		355	2 Nov 00	1409	S07:01.18	W081:44.08	4	71	4	On	
021		356	2 Nov 00	1425	S07:00.86	W081:41.20	4	71	7	On	
021	018	393	7 Nov 00	1119	S00:57.20	W081:03.95	3	92	39	On	
021		404	9 Nov 00	1337	N01:25.60	W079:47.26	5	126	4	Off	
021		440	20 Nov 00	1108	N05:11.45	W080:51.64	4	91	5	On	
021		450	22 Nov 00	0647	N05:32.54	W086:40.38	3	200	12	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Effort size	Effort fort
021		1747	22 Nov 00	1342	N15:02.25	W108:55.43	5	7	9	On	
021	018	454	23 Nov 00	0939	N05:40.83	W089:09.02	2	91	34	On	
021		462	24 Nov 00	0833	N05:45.47	W092:09.87	3	99	5	Off	
021		467	24 Nov 00	1746	N05:52.53	W093:32.93	3	149	9	On	
021		469	25 Nov 00	0838	N06:05.96	W095:03.52	2	92	7	On	
021	013	470	25 Nov 00	0905	N06:09.00	W095:10.93	2	149	2	On	
021		1777	28 Nov 00	1730	N17:16.00	W116:13.16	4	199	29	On	
021		1783	30 Nov 00	0718	N18:19.89	W111:10.22	4	188	15	On	
021		519	2 Dec 00	1531	N14:37.96	W113:23.98	3	149	19	On	
021		1809	5 Dec 00	1416	N24:07.16	W119:00.76	3	73	24	On	
021		1812	6 Dec 00	0951	N26:30.05	W118:53.81	0	73	19	On	
021		1817	6 Dec 00	1443	N27:07.30	W118:35.41	3	196	28	Off	
<i>Lagenorhynchus obliquidens</i>											
022		1008	30 Jul 00	0854	N29:47.78	W115:53.90	1	92	16	On	
022		1011	30 Jul 00	0943	N29:40.24	W115:52.95	2	99	40	Off	
022		1025	31 Jul 00	1706	N27:26.31	W114:58.20	3	197	12	On	
022		1028	31 Jul 00	1804	N27:22.05	W114:51.57	3	126	12	On	
022		1027	31 Jul 00	1747	N27:22.84	W114:53.85	3	197	13	On	
022		1052	2 Aug 00	0827	N25:28.63	W113:02.18	3	91	13	On	
<i>Lagenorhynchus obscurus</i>											
025		325	29 Oct 00	1555	S11:29.29	W077:45.34	1	200	15	On	
025		324	29 Oct 00	1545	S11:35.41	W077:47.33	1	92	4	On	
025		323	29 Oct 00	1442	S11:39.10	W077:38.58	1	200	65	On	
025		322	29 Oct 00	1357	S11:44.64	W077:34.41	2	91	76	On	
025	016	332	30 Oct 00	1521	S08:56.83	W079:02.08	2	149	39	On	
<i>Feresa attenuata</i>											
032		78	13 Aug 00	1149	N11:58.67	W132:34.24	2	125	2	On	
032		1298	5 Sep 00	1302	N12:54.49	W101:25.52	2	92	30	Off	
032		402	9 Nov 00	0859	N01:41.54	W080:11.94	5	126	27	On	
<i>Pseudorca crassidens</i>											
033	018 077	52	11 Aug 00	1643	N11:53.45	W129:30.28	1	7	22	On	
033		173	14 Sep 00	1414	S04:21.39	W116:42.21	5	125	20	On	
033		185	20 Sep 00	1327	N03:29.27	W105:22.82	5	125	50	On	
033		189	22 Sep 00	0750	N04:16.39	W100:02.75	3	7	20	On	
033	036	188	22 Sep 00	0637	N04:13.61	W100:06.96	3	196	16	On	
033		1501	7 Oct 00	1417	N06:26.40	W081:47.77	4	125	17	On	
033	018	1714	14 Nov 00	0933	N16:38.73	W100:44.63	0	196	7	On	
033	018	1712	14 Nov 00	0906	N16:32.43	W100:47.15	0	7	8	On	
033	018	1711	14 Nov 00	0806	N16:32.61	W100:40.20	0	196	51	On	
<i>Globicephala sp.</i>											
034	018	276	10 Oct 00	1830	S00:02.66	W095:42.33	3	200	16	On	
034		283	12 Oct 00	1030	S03:49.74	W099:05.84	4	91	7	On	
034	018	287	12 Oct 00	1809	S04:44.46	W100:02.19	4	92	19	On	
034		294	14 Oct 00	1418	S09:06.73	W103:53.54	5	197	10	On	
034		306	21 Oct 00	1134	S11:32.23	W087:21.14	4	149	18	On	
034	018	311	22 Oct 00	1638	S12:19.45	W084:00.59	5	200	12	On	
034	037 018	315	23 Oct 00	0935	S12:22.48	W082:25.74	5	92	26	On	
034	018	316	23 Oct 00	1207	S12:24.35	W082:18.01	5	149	7	On	
034	018	386	7 Nov 00	0707	S00:56.49	W081:34.92	3	197	120	On	
034	018	391	7 Nov 00	1029	S00:57.30	W081:10.64	3	126	13	On	
<i>Globicephala macrorhynchus</i>											
036	AT	1035	1 Aug 00	1104	N26:56.30	W114:45.71	2	197	30	On	
036		27	7 Aug 00	1530	N15:05.02	W121:25.99	4	188	13	On	
036	018	49	11 Aug 00	1010	N11:28.81	W128:50.14	3	125	17	On	

Table 2. Marine mammal sightings (continued)

Other Code	Code	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
036	021	018	64	12 Aug 00	1037	N12:56.67	W131:20.03	1	196	75	On
036		57	12 Aug 00	0716	N12:39.50	W130:52.37	0	7	59	On	
036		65	12 Aug 00	1216	N13:03.28	W131:18.34	1	7	20	On	
036		84	14 Aug 00	1449	N08:19.39	W133:11.70	5	125	17	On	
036	065	018	90	15 Aug 00	1445	N06:52.83	W135:32.57	5	73	19	On
036		99	17 Aug 00	1140	N04:04.36	W140:09.54	5	73	6	On	
036		98	17 Aug 00	0722	N04:30.54	W139:27.25	3	73	33	On	
036		104	18 Aug 00	1434	N07:34.45	W141:25.00	4	199	11	On	
036		122	24 Aug 00	0913	N19:14.04	W155:59.96	2	199	14	On	
036		135	5 Sep 00	0827	N09:22.42	W137:48.41	4	73	20	Off	
036	018	174	15 Sep 00	1517	S04:02.88	W113:19.08	5	199	19	On	
036		1342	21 Sep 00	1024	N06:03.12	W106:58.59	4	126	13	On	
036		1350	22 Sep 00	1249	N08:03.49	W104:45.83	3	200	27	Off	
036	033	188	22 Sep 00	0637	N04:13.61	W100:06.96	3	196	30	On	
036		1352	23 Sep 00	0732	N09:16.89	W103:06.52	4	149	8	On	
036		1353	23 Sep 00	0811	N09:18.91	W103:03.77	3	92	20	Off	
036		211	24 Sep 00	1353	N06:39.91	W093:12.76	5	196	18	Off	
036		215	26 Sep 00	0715	N07:27.52	W090:40.41	6	188	17	On	
036		232	27 Sep 00	1354	N08:09.88	W088:06.95	4	125	15	On	
036	018	225	27 Sep 00	0726	N07:17.93	W088:30.18	4	73	25	On	
036	018	246	6 Oct 00	0736	N07:35.23	W084:52.68	2	149	17	On	
036		1475	6 Oct 00	0823	N08:13.49	W083:21.44	1	199	18	On	
036	018	256	6 Oct 00	1603	N07:07.25	W086:06.28	2	200	8	On	
036		257	6 Oct 00	1615	N07:05.07	W086:11.42	2	200	15	On	
036		255	6 Oct 00	1537	N07:08.70	W086:04.60	2	91	18	On	
036	018	1497	7 Oct 00	1053	N06:52.79	W081:38.89	3	73	33	On	
036	018	271	10 Oct 00	0805	N00:50.51	W094:57.34	5	197	17	On	
036		288	13 Oct 00	0825	S06:02.09	W101:05.84	5	149	12	On	
036		1666	2 Nov 00	1749	N06:31.17	W099:32.86	3	188	17	On	
036		1672	3 Nov 00	1345	N06:19.44	W101:41.39	5	125	19	On	
036		1677	4 Nov 00	1330	N06:24.08	W104:29.74	4	188	14	Off	
036	018	461	23 Nov 00	1735	N05:42.22	W090:25.25	2	91	45	On	
036	018	468	25 Nov 00	0639	N06:00.96	W094:53.33	2	126	29	On	
036		502	29 Nov 00	1404	N09:15.42	W107:44.42	4	149	36	On	
036		540	5 Dec 00	0958	N22:30.45	W113:15.62	2	91	15	On	
036		554	5 Dec 00	1450	N23:05.20	W113:21.46	3	149	23	Off	
036		560	6 Dec 00	1459	N25:48.78	W114:53.29	3	126	38	On	
<i>Orcinus orca</i>											
037	013	6	3 Aug 00	0703	N19:41.91	W123:07.74	3	188	3	On	
037		1121	8 Aug 00	1252	N22:00.16	W108:45.27	1	126	5	On	
037		1177	15 Aug 00	0719	N20:16.22	W105:45.41	2	91	5	On	
037		107	20 Aug 00	1031	N08:37.07	W146:50.17	4	188	3	On	
037		144	9 Sep 00	1507	N00:19.22	W126:54.88	4	73	17	On	
037		1331	13 Sep 00	1931	N16:01.55	W103:35.60	4	4	12	Off	
037		1494	7 Oct 00	0959	N06:52.73	W081:39.87	3	188	2	On	
037		1600	20 Oct 00	1114	N15:48.97	W097:30.74	2	188	4	On	
037	034	315	23 Oct 00	0935	S12:22.48	W082:25.74	5	92	12	On	
037		349	1 Nov 00	1501	S08:44.76	W082:36.32	4	92	4	On	
037		403	9 Nov 00	1014	N01:32.89	W080:05.26	5	126	3	On	
037		1702	12 Nov 00	1518	N14:06.86	W104:22.94	3	7	6	On	
037	099	426	13 Nov 00	1420	N07:50.17	W078:57.34	3	126	5	On	
037		1739	21 Nov 00	1257	N16:21.42	W105:45.96	4	125	4	On	
037		1752	23 Nov 00	1358	N13:57.26	W111:17.38	5	7	7	On	
037		1767	27 Nov 00	0943	N16:27.09	W119:57.66	4	73	1	On	
037		1804	4 Dec 00	1318	N21:18.44	W117:31.71	2	7	9	On	
<i>Physeter macrocephalus</i>											
046		1255	25 Aug 00	1854	N12:54.02	W117:45.46	5	126	3	On	
046		172	14 Sep 00	0927	S04:23.67	W117:10.33	5	188	1	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting					Obs.	School	Ef- fort	
		Number	Date	Time	Latitude	Longitude	Bft.	no.	size	
046		240	28 Sep 00	1627	N08:58.29	W085:37.12	5	196	6	Off
046		278	11 Oct 00	0907	S01:20.32	W096:52.89	3	149	6	On
046		300	19 Oct 00	1817	S09:16.17	W091:04.97	3	99	1	Off
046		321	24 Oct 00	1734	S12:40.76	W078:27.91	5	99	11	Off
046		1657	1 Nov 00	1625	N08:11.14	W097:20.38	3	73	1	On
046		363	3 Nov 00	1403	S06:18.77	W081:13.70	2	91	27	On
046		518	2 Dec 00	1246	N14:34.60	W113:17.01	3	99	2	Off
046		567	7 Dec 00	1607	N28:45.71	W116:35.64	5	149	2	On
<i>Kogia sima</i>										
048		1122	8 Aug 00	1254	N21:55.87	W108:47.54	1	126	3	Off
048		1120	8 Aug 00	1241	N21:54.47	W108:46.76	1	91	5	On
048		1127	9 Aug 00	1255	N24:27.25	W109:34.42	4	126	3	On
048		53	11 Aug 00	1820	N11:57.78	W129:41.85	1	199	1	On
048		1164	12 Aug 00	1633	N20:52.94	W106:04.16	1	200	1	On
048		1162	12 Aug 00	1524	N20:59.99	W106:09.23	1	4	1	Off
048		58	12 Aug 00	0807	N12:42.74	W130:56.50	0	125	2	On
048		56	12 Aug 00	0711	N12:40.37	W130:52.49	0	99	3	Off
048		59	12 Aug 00	0816	N12:41.87	W130:55.25	0	125	2	On
048		55	12 Aug 00	0707	N12:41.10	W130:50.27	0	7	2	On
048		1163	12 Aug 00	1618	N20:55.72	W106:05.51	1	91	1	On
048		1214	20 Aug 00	1715	N17:02.57	W107:23.58	1	91	4	On
048		1215	20 Aug 00	1722	N17:03.12	W107:24.24	1	91	1	On
048		1204	20 Aug 00	1133	N17:16.08	W106:39.82	0	92	2	On
048		1206	20 Aug 00	1242	N17:15.32	W106:49.46	0	92	1	On
048		1207	20 Aug 00	1302	N17:13.11	W106:54.50	0	126	1	On
048		1213	20 Aug 00	1647	N17:06.17	W107:18.19	1	92	1	On
048		1225	21 Aug 00	1243	N16:22.26	W109:35.25	3	126	3	Off
048		1293	5 Sep 00	0935	N12:58.38	W101:49.57	1	92	1	On
048		1292	5 Sep 00	0931	N12:57.79	W101:50.80	1	92	3	On
048		1294	5 Sep 00	1011	N13:00.76	W101:43.87	1	91	2	On
048		1321	12 Sep 00	1423	N16:57.07	W100:25.56	1	149	7	On
048		1362	23 Sep 00	1452	N09:54.44	W102:33.59	1	92	3	On
048		1374	24 Sep 00	0657	N11:08.59	W100:59.10	1	126	1	Off
048		1397	24 Sep 00	1547	N11:40.93	W099:51.04	2	92	1	On
048		1476	6 Oct 00	1016	N08:08.55	W083:07.80	2	188	2	On
048		1477	6 Oct 00	1047	N08:04.65	W083:04.36	2	125	1	On
048		1478	6 Oct 00	1051	N08:05.08	W083:04.97	2	125	1	On
048		1724	15 Nov 00	0950	N17:49.18	W102:39.29	2	125	1	On
048		457	23 Nov 00	1239	N05:37.99	W089:34.19	3	126	1	Off
<i>ziphiid whale</i>										
049		1024	31 Jul 00	1620	N27:32.30	W115:02.25	2	91	1	On
049		1072	4 Aug 00	1556	N22:56.32	W117:15.78	4	197	1	On
049		11	5 Aug 00	1747	N20:20.10	W119:00.89	3	199	2	Off
049		34	9 Aug 00	1335	N09:40.15	W124:21.09	3	7	3	On
049		45	10 Aug 00	1531	N10:12.40	W127:09.03	2	7	9	On
049		1159	12 Aug 00	1418	N21:03.70	W106:12.12	2	126	1	On
049		75	13 Aug 00	0955	N12:19.39	W132:32.33	2	196	1	On
049		101	17 Aug 00	1832	N04:56.19	W140:38.86	5	73	2	On
049		1219	21 Aug 00	0905	N16:33.89	W109:12.37	2	91	1	On
049		1245	22 Aug 00	1849	N15:39.71	W112:46.57	3	92	1	Off
049		1291	5 Sep 00	0833	N12:57.87	W102:01.63	3	149	1	On
049		147	10 Sep 00	1307	S02:13.56	W126:15.35	5	125	2	Off
049		1338	15 Sep 00	1034	N13:29.87	W106:58.39	3	91	1	On
049		1343	21 Sep 00	1125	N06:04.86	W107:00.65	4	197	1	Off
049		198	23 Sep 00	1027	N05:23.27	W096:16.36	3	196	1	Off
049		1368	23 Sep 00	1729	N10:06.05	W102:13.19	2	197	2	On
049		1360	23 Sep 00	1348	N09:53.32	W102:38.26	1	200	2	On
049		1378	24 Sep 00	0755	N11:09.91	W100:47.58	1	92	2	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School no.	Eff- size	fort
		Number	Date	Time	Latitude	Longitude	Bft.				
049		1396	24 Sep 00	1521	N11:41.63	W099:54.62	2	126	3	On	
049		1383	24 Sep 00	0856	N11:19.09	W100:41.53	1	200	4	On	
049		1394	24 Sep 00	1358	N11:35.83	W100:03.05	1	91	3	On	
049		1392	24 Sep 00	1254	N11:32.00	W100:06.07	2	197	3	On	
049		1410	25 Sep 00	1555	N12:31.43	W097:01.70	3	92	1	On	
049		1474	6 Oct 00	0818	N08:06.10	W083:23.58	1	125	2	On	
049		1560	14 Oct 00	1749	N08:48.46	W094:18.17	2	196	1	On	
049		291	14 Oct 00	1013	S08:34.86	W103:20.28	4	197	1	On	
049		1566	15 Oct 00	1152	N08:42.70	W096:06.13	2	125	1	On	
049		1573	15 Oct 00	1444	N08:41.98	W096:33.20	2	188	1	On	
049		1607	20 Oct 00	1744	N15:34.46	W096:46.45	1	199	3	On	
049		309	22 Oct 00	0733	S12:19.47	W085:33.66	5	197	1	On	
049		1641	31 Oct 00	1028	N10:04.44	W094:58.82	2	196	1	On	
049		361	3 Nov 00	1123	S06:37.41	W080:59.10	0	99	5	Off	
049		388	7 Nov 00	0827	S00:56.74	W081:28.21	3	200	4	On	
049		1684	8 Nov 00	1414	N07:45.27	W113:27.19	5	188	1	Off	
049		1700	12 Nov 00	1251	N13:48.58	W104:39.65	4	199	1	On	
049		1709	14 Nov 00	0737	N16:30.90	W100:39.03	0	199	2	On	
049		1716	14 Nov 00	1333	N16:59.51	W101:11.57	2	188	3	On	
049		1732	20 Nov 00	1520	N18:35.99	W104:37.77	2	196	5	On	
049		442	20 Nov 00	1408	N05:15.14	W081:17.67	4	126	1	On	
049		1740	21 Nov 00	1448	N16:18.03	W105:54.60	4	196	1	On	
049		1774	28 Nov 00	1209	N16:58.68	W117:04.07	3	7	1	On	
049		494	28 Nov 00	1256	N08:46.31	W104:08.31	3	197	1	On	
049		1776	28 Nov 00	1436	N17:05.99	W116:38.34	4	73	1	On	
049		517	2 Dec 00	1240	N14:30.89	W113:20.19	3	92	1	Off	
049		559	6 Dec 00	1012	N25:19.32	W114:11.35	3	200	2	On	
<i>Mesoplodon</i> sp.											
051		1155	12 Aug 00	1044	N21:23.94	W106:39.32	2	91	3	On	
051		94	16 Aug 00	0929	N06:04.62	W137:02.78	4	196	2	On	
051		1196	19 Aug 00	1841	N18:21.47	W105:08.76	1	126	2	On	
051		1369	23 Sep 00	1807	N10:10.27	W102:09.60	1	149	2	On	
051		1498	7 Oct 00	1134	N06:50.51	W081:45.51	3	125	1	On	
051		1520	9 Oct 00	1618	N08:44.02	W086:23.38	2	7	2	On	
051		1563	15 Oct 00	0926	N08:40.74	W095:52.51	1	199	2	Off	
051		1579	15 Oct 00	1752	N08:40.92	W096:54.25	3	188	2	Off	
051		1576	15 Oct 00	1618	N08:40.34	W096:39.29	3	73	1	On	
051		295	16 Oct 00	1034	S09:53.58	W101:08.38	6	99	1	Off	
051		350	1 Nov 00	1702	S08:28.23	W082:44.89	4	91	1	On	
051		357	2 Nov 00	1601	S06:59.32	W081:25.96	4	149	1	On	
051		372	5 Nov 00	0639	S02:33.00	W081:09.51	4	99	1	Off	
051		382	6 Nov 00	1408	S00:16.51	W083:30.10	3	149	1	On	
051		390	7 Nov 00	0920	S01:01.17	W081:20.56	3	149	1	Off	
051		471	25 Nov 00	0939	N06:08.84	W095:10.78	2	98	1	Off	
<i>Mesoplodon densirostris</i>											
059		1680	7 Nov 00	1141	N06:14.06	W113:13.99	5	188	2	On	
<i>Ziphius cavirostris</i>											
061		1033	1 Aug 00	0953	N26:50.76	W115:01.65	1	91	1	On	
061		1031	1 Aug 00	0924	N26:48.60	W115:04.74	1	91	2	On	
061		1073	4 Aug 00	1705	N22:43.88	W117:08.70	4	4	3	Off	
061		1110	7 Aug 00	0923	N23:04.10	W110:39.20	4	99	3	Off	
061		1160	12 Aug 00	1503	N21:00.03	W106:10.00	1	4	2	Off	
061		68	12 Aug 00	1603	N13:10.83	W131:38.54	0	7	1	On	
061		1242	22 Aug 00	1658	N15:44.28	W112:36.79	3	91	4	Off	
061		151	11 Sep 00	0903	S04:39.08	W125:58.13	5	199	2	On	
061		192	22 Sep 00	1208	N04:25.44	W099:23.92	4	188	4	On	
061		200	23 Sep 00	1228	N05:24.34	W095:56.19	3	73	6	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
061		1389	24 Sep 00	1148	N11:29.46	W100:16.48	3	149	4	On	
061		1504	8 Oct 00	0712	N06:16.53	W083:22.76	4	188	2	On	
061		273	10 Oct 00	1138	N00:35.27	W095:15.85	4	149	2	On	
061		1537	12 Oct 00	0842	N09:17.01	W090:51.46	3	4	4	Off	
061		1558	14 Oct 00	1536	N08:59.98	W094:05.68	2	125	4	On	
061		1568	15 Oct 00	1232	N08:41.31	W096:17.35	2	73	1	Off	
061		1591	18 Oct 00	1719	N11:45.11	W096:57.37	5	4	2	Off	
061		299	19 Oct 00	1046	S09:24.37	W092:14.73	4	200	1	On	
061		1636	30 Oct 00	1412	N11:56.77	W093:05.47	4	196	1	On	
061		1642	31 Oct 00	1032	N10:05.24	W094:58.87	2	196	1	On	
061		1668	3 Nov 00	0908	N06:18.37	W101:00.12	4	196	1	On	
061		1670	3 Nov 00	1156	N06:18.11	W101:25.69	5	196	1	Off	
061		1688	9 Nov 00	1222	N09:03.43	W111:22.47	5	73	1	On	
061		1699	12 Nov 00	1244	N13:47.10	W104:44.06	4	199	2	On	
061		456	23 Nov 00	1233	N05:37.67	W089:33.81	3	197	1	On	
061		465	24 Nov 00	1325	N05:47.49	W092:52.26	3	99	3	Off	
061		532	4 Dec 00	1028	N19:45.33	W114:39.22	3	98	1	Off	
061		562	6 Dec 00	1717	N25:57.29	W115:13.34	4	149	1	On	
<i>Berardius bairdii</i>											
063		1051	1 Aug 00	1740	N26:50.06	W114:14.64	3	197	13	Off	
<i>Indopacetus pacificus</i>											
065	036	018	90	15 Aug 00	1445	N06:52.83	W135:32.57	5	73	8	On
<i>Balaenoptera</i> sp.											
070		1006	29 Jul 00	1832	N31:35.68	W116:52.41	3	126	2	Off	
070		1023	31 Jul 00	1041	N28:09.42	W115:33.56	2	92	4	On	
070		1070	3 Aug 00	1836	N23:54.10	W115:32.39	2	4	1	Off	
070		1101	6 Aug 00	1709	N24:04.24	W111:46.82	3	4	1	On	
070	075	1108	7 Aug 00	0804	N23:03.71	W110:38.13	4	91	1	On	
070		1328	13 Sep 00	1751	N16:02.65	W103:29.15	4	91	1	On	
070	099	1341	21 Sep 00	0835	N06:02.30	W107:06.46	4	92	4	On	
070		1452	30 Sep 00	0958	N10:08.70	W085:57.78	3	4	1	Off	
070		1499	7 Oct 00	1153	N06:46.42	W081:47.57	3	125	2	On	
070		1533	11 Oct 00	1530	N09:40.73	W090:22.32	5	199	1	Off	
070		1532	11 Oct 00	1459	N09:40.34	W090:14.81	5	196	1	On	
070		341	31 Oct 00	1441	S08:18.74	W079:55.46	4	149	11	On	
070		342	31 Oct 00	1519	S08:20.36	W079:58.51	3	92	3	On	
070		344	31 Oct 00	1734	S08:24.26	W080:02.36	3	200	1	On	
070		340	31 Oct 00	1433	S08:20.77	W079:50.57	4	98	2	Off	
070		373	5 Nov 00	0749	S02:28.42	W081:21.70	4	126	1	Off	
070		1695	10 Nov 00	0827	N10:09.99	W109:25.54	5	7	1	On	
070		430	13 Nov 00	1721	N08:11.25	W079:11.25	2	200	2	On	
070		1717	14 Nov 00	1343	N17:07.08	W101:07.66	2	196	1	On	
070		1736	21 Nov 00	0726	N16:45.44	W105:01.78	3	199	1	On	
070		1757	24 Nov 00	1707	N13:37.78	W112:28.33	4	199	1	On	
070		1761	25 Nov 00	1712	N14:10.79	W115:09.31	4	188	1	On	
070		503	29 Nov 00	1424	N09:15.32	W107:43.77	4	149	1	Off	
070		1781	29 Nov 00	0931	N17:43.35	W114:13.80	4	199	1	Off	
070		1800	3 Dec 00	1522	N18:50.89	W116:39.47	2	4	1	Off	
070		1808	5 Dec 00	1242	N23:55.53	W118:55.17	1	188	1	On	
070		571	8 Dec 00	1151	N30:45.38	W116:26.02	5	92	1	On	
<i>Balaenoptera acutorostrata</i>											
071		1805	4 Dec 00	1518	N21:20.25	W117:29.62	2	4	2	Off	
<i>Balaenoptera edeni</i>											
072		1061	2 Aug 00	1455	N24:48.23	W112:32.36	4	126	1	On	
072		1063	2 Aug 00	1605	N24:45.29	W112:35.31	4	91	1	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Effort size	Effort fort
072		1067	2 Aug 00	1812	N24:42.36	W112:19.47	4	91	1	On	
072		18	6 Aug 00	1906	N16:56.30	W120:09.37	1	7	1	On	
072		1104	6 Aug 00	1823	N24:04.50	W111:42.46	3	99	2	Off	
072		41	10 Aug 00	1055	N10:07.97	W126:39.52	3	196	1	On	
072		1148	11 Aug 00	1654	N22:27.24	W107:15.15	4	91	1	On	
072		67	12 Aug 00	1322	N13:03.30	W131:29.23	0	125	2	On	
072		74	13 Aug 00	0807	N12:25.55	W132:32.94	2	188	2	On	
072		133	4 Sep 00	0940	N11:33.77	W140:27.81	4	199	1	On	
072		140	8 Sep 00	1420	N02:19.12	W129:18.26	4	188	2	On	
072		148	10 Sep 00	1442	S02:27.33	W126:14.55	5	99	1	Off	
072		145	10 Sep 00	0657	S01:15.30	W126:16.68	5	199	1	On	
072		168	13 Sep 00	1514	S04:22.68	W118:58.37	5	73	1	On	
072		169	13 Sep 00	1544	S04:21.04	W118:57.50	5	125	1	On	
072		183	20 Sep 00	1015	N03:07.95	W105:48.59	5	125	2	On	
072		1351	22 Sep 00	1526	N08:14.01	W104:31.44	3	149	1	On	
072		208	23 Sep 00	1731	N05:32.72	W095:20.41	4	73	2	On	
072		204	23 Sep 00	1427	N05:33.40	W095:36.44	4	196	3	On	
072		206	23 Sep 00	1611	N05:28.13	W095:37.36	4	188	3	On	
072		1470	5 Oct 00	1635	N09:13.60	W084:30.18	2	7	1	On	
072		1471	5 Oct 00	1724	N09:13.54	W084:26.72	2	125	1	On	
072		1481	6 Oct 00	1359	N07:59.44	W082:35.32	2	7	1	On	
072		1535	11 Oct 00	1645	N09:30.40	W090:23.68	4	125	1	On	
072		308	21 Oct 00	1516	S11:47.24	W086:49.69	5	149	4	On	
072		1632	30 Oct 00	0839	N12:26.87	W092:32.40	4	188	2	On	
072		328	30 Oct 00	1121	S09:29.09	W078:59.56	2	149	1	On	
072		339	31 Oct 00	1347	S08:21.37	W079:48.79	4	92	1	On	
072		1689	9 Nov 00	1256	N09:11.30	W111:14.72	5	7	2	On	
072		1693	9 Nov 00	1816	N09:29.56	W110:34.31	5	7	1	On	
072		1694	10 Nov 00	0749	N10:06.98	W109:31.88	5	199	1	On	
072		1770	27 Nov 00	1650	N16:38.89	W119:03.70	4	7	1	On	
072		1794	3 Dec 00	1049	N19:06.32	W116:08.69	1	4	1	Off	
072		1802	3 Dec 00	1630	N18:49.57	W116:48.03	2	196	2	On	
<i>Balaenoptera musculus</i>											
075		1015	30 Jul 00	1355	N29:37.58	W115:57.19	2	197	4	On	
075		1018	30 Jul 00	1539	N29:29.08	W115:53.07	3	126	13	On	
075		1013	30 Jul 00	1053	N29:38.36	W115:53.65	2	91	7	Off	
075		1021	31 Jul 00	0700	N28:27.01	W115:35.55	3	200	4	On	
075	070	1108	7 Aug 00	0804	N23:03.71	W110:38.13	4	91	3	On	
075		1536	11 Oct 00	1743	N09:27.39	W090:26.04	4	73	1	On	
075		1543	12 Oct 00	1754	N10:06.33	W091:12.93	5	196	1	On	
075		1548	13 Oct 00	1237	N10:50.13	W092:07.66	4	73	1	Off	
075		1551	13 Oct 00	1558	N10:46.58	W092:13.66	3	188	1	Off	
075		1545	13 Oct 00	0936	N10:58.26	W091:54.00	4	199	2	Off	
075		1561	14 Oct 00	1809	N08:40.92	W094:24.28	2	7	2	On	
075		1556	14 Oct 00	1404	N09:05.29	W093:55.77	1	4	1	Off	
075		1571	15 Oct 00	1334	N08:42.72	W096:25.54	2	196	1	On	
075		1588	18 Oct 00	0744	N11:16.90	W097:52.21	5	188	2	On	
075		333	30 Oct 00	1740	S08:41.80	W079:02.45	2	197	1	On	
075		1648	31 Oct 00	1706	N09:49.50	W095:40.20	3	73	1	Off	
075		1651	1 Nov 00	0706	N08:53.17	W096:37.98	2	188	1	On	
075		1655	1 Nov 00	1358	N08:13.48	W097:20.67	4	196	2	On	
075		358	2 Nov 00	1719	S06:58.26	W081:10.98	4	71	1	On	
075		1704	13 Nov 00	1102	N15:17.98	W102:40.91	4	188	1	On	
075		478	26 Nov 00	0938	N07:26.07	W098:05.49	3	126	1	Off	
075		556	5 Dec 00	1637	N23:25.98	W113:28.94	3	91	2	On	
<i>Megaptera novaeangliae</i>											
076	077	1014	30 Jul 00	1323	N29:42.69	W115:53.33	2	92	2	Off	
076		1010	30 Jul 00	0940	N29:40.20	W115:53.05	2	99	4	Off	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
076		1467	5 Oct 00	1459	N09:19.31	W084:34.78	2	73	2	On	
076		1466	5 Oct 00	1427	N09:23.55	W084:31.79	2	196	2	On	
076		1468	5 Oct 00	1524	N09:20.21	W084:32.15	2	196	2	On	
076		1480	6 Oct 00	1258	N07:58.06	W082:48.01	2	73	2	On	
076		1483	6 Oct 00	1642	N07:49.34	W082:19.74	3	199	2	Off	
076		1486	6 Oct 00	1741	N07:39.86	W082:15.79	4	199	2	On	
076 015		1482	6 Oct 00	1537	N07:51.04	W082:28.87	3	73	3	On	
076		320	24 Oct 00	1131	S12:34.74	W078:54.94	5	99	3	Off	
076		327	30 Oct 00	0713	S09:53.91	W079:03.98	3	92	2	On	
076 099		343	31 Oct 00	1522	S08:23.98	W080:00.89	3	126	2	On	
076		360	3 Nov 00	0934	S06:39.06	W080:49.51	0	126	3	Off	
076		369	4 Nov 00	1707	S03:44.03	W081:01.09	5	197	1	On	
076		408	10 Nov 00	1616	N03:05.21	W077:56.38	4	126	2	On	
076		1820	8 Dec 00	0724	N31:19.08	W117:01.74	4	73	4	On	
076		570	8 Dec 00	1016	N30:42.95	W116:16.78	5	126	2	On	
unid. dolphin											
077		1020	30 Jul 00	1631	N29:25.87	W115:53.34	3	92	4	Off	
077 076		1014	30 Jul 00	1323	N29:42.69	W115:53.33	2	92	10	Off	
077		1022	31 Jul 00	0945	N28:24.12	W115:17.12	2	99	10	Off	
077		1050	1 Aug 00	1737	N26:56.94	W114:08.14	3	126	20	On	
077		1071	4 Aug 00	0707	N23:45.24	W117:00.98	4	91	5	On	
077		1082	6 Aug 00	0828	N23:37.41	W112:50.42	4	92	2	On	
077		16	6 Aug 00	1630	N17:18.25	W120:06.03	1	7	3	On	
077		1098	6 Aug 00	1632	N24:07.94	W111:52.41	3	200	4	On	
077		1091	6 Aug 00	1415	N24:03.75	W112:17.57	2	126	25	On	
077		19	6 Aug 00	1940	N16:58.96	W120:11.76	1	7	25	Off	
077		1087	6 Aug 00	1209	N23:43.11	W112:29.86	4	99	8	Off	
077		1093	6 Aug 00	1446	N23:57.14	W112:10.21	1	92	5	On	
077		1106	7 Aug 00	0649	N23:11.94	W110:45.09	4	126	4	On	
077		26	7 Aug 00	1159	N15:26.08	W121:12.82	4	125	2	On	
077		1116	8 Aug 00	0959	N21:51.23	W109:07.26	1	126	3	On	
077		33	9 Aug 00	1313	N09:42.21	W124:21.22	3	196	1	On	
077 018		30	9 Aug 00	0728	N10:28.07	W123:54.91	4	73	8	On	
077		31	9 Aug 00	0900	N10:15.69	W123:53.55	4	196	22	On	
077		1136	10 Aug 00	1225	N24:18.52	W107:47.18	3	126	3	On	
077		43	10 Aug 00	1318	N10:08.76	W126:53.62	2	125	15	Off	
077 018 033		52	11 Aug 00	1643	N11:53.45	W129:30.28	1	7	15	On	
077		1142	11 Aug 00	0725	N23:40.71	W107:01.68	3	197	2	On	
077		1145	11 Aug 00	1111	N23:10.85	W107:09.91	3	197	2	On	
077		1151	12 Aug 00	0722	N21:43.75	W106:57.22	4	92	4	Off	
077		61	12 Aug 00	0849	N12:49.81	W131:03.13	0	188	12	On	
077		1157	12 Aug 00	1323	N21:13.13	W106:16.85	3	197	5	On	
077		1152	12 Aug 00	0738	N21:45.76	W106:50.63	4	126	10	On	
077		77	13 Aug 00	1048	N12:06.74	W132:40.49	2	196	60	On	
077		76	13 Aug 00	1032	N12:09.99	W132:26.25	2	7	1	On	
077		1174	13 Aug 00	1754	N20:16.57	W108:51.96	2	92	10	On	
077		1175	13 Aug 00	1759	N20:14.11	W108:52.84	2	92	1	On	
077		1189	15 Aug 00	1649	N19:22.86	W105:17.22	3	92	20	On	
077		91	15 Aug 00	1851	N06:37.78	W135:46.10	5	73	7	On	
077		1180	15 Aug 00	1038	N19:56.76	W105:40.21	1	91	10	On	
077		1186	15 Aug 00	1316	N19:40.59	W105:38.19	2	126	48	Off	
077		93	16 Aug 00	0821	N06:08.55	W137:03.61	4	73	2	On	
077		102	18 Aug 00	0702	N06:22.47	W140:58.47	4	99	1	Off	
077 090		1192	19 Aug 00	1457	N18:40.48	W104:45.13	3	91	4	On	
077		1203	20 Aug 00	1119	N17:16.34	W106:39.75	0	92	28	Off	
077 021		1209	20 Aug 00	1316	N17:11.58	W106:56.85	0	91	4	On	
077		108	20 Aug 00	1329	N08:41.83	W147:14.39	5	199	3	On	
077		1216	20 Aug 00	1731	N16:56.68	W107:26.16	1	91	10	On	
077		1223	21 Aug 00	1054	N16:30.27	W109:26.71	3	126	5	Off	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
077		117	22 Aug 00	1642	N13:46.03	W151:06.96	3	125	5	On	
077		116	22 Aug 00	1557	N13:42.34	W150:58.57	3	73	2	On	
077		1244	22 Aug 00	1844	N15:40.15	W112:44.15	3	126	1	On	
077		1236	22 Aug 00	1341	N15:44.26	W112:20.08	3	99	3	Off	
077		1248	23 Aug 00	1319	N14:51.12	W114:52.78	5	98	2	Off	
077		1247	23 Aug 00	1040	N14:57.48	W114:30.96	4	126	20	On	
077		118	23 Aug 00	0859	N16:03.89	W153:28.71	5	73	1	On	
077		1251	24 Aug 00	1256	N14:04.11	W118:00.58	5	99	3	Off	
077		1252	24 Aug 00	1333	N13:54.50	W118:06.98	5	92	1	On	
077		1254	24 Aug 00	1741	N13:48.68	W118:47.80	5	149	1	On	
077		1258	26 Aug 00	1921	N12:16.15	W115:05.98	3	149	3	Off	
077 002		1266	30 Aug 00	1137	N07:34.26	W117:06.15	4	126	20	On	
077		1271	31 Aug 00	1140	N08:54.13	W113:59.98	5	91	4	On	
077		126	1 Sep 00	0743	N18:25.92	W151:31.45	5	125	13	On	
077		1274	2 Sep 00	1029	N07:46.37	W109:34.89	5	91	11	On	
077		1284	3 Sep 00	1714	N10:31.16	W106:02.71	4	92	2	On	
077		128	3 Sep 00	0842	N13:55.14	W143:44.30	4	196	12	On	
077		129	3 Sep 00	0915	N13:53.81	W143:38.95	4	188	2	On	
077		130	3 Sep 00	1233	N13:38.17	W143:08.90	6	196	5	Off	
077		131	3 Sep 00	1249	N13:35.55	W143:05.17	5	196	8	On	
077		1289	4 Sep 00	1804	N12:33.94	W103:26.90	3	126	4	On	
077		1286	4 Sep 00	0755	N11:26.15	W104:36.74	5	197	1	On	
077		1301	5 Sep 00	1650	N13:13.04	W100:59.41	2	126	2	On	
077		1305	7 Sep 00	0748	N15:59.86	W098:11.85	4	92	1	On	
077		1313	7 Sep 00	1541	N16:26.52	W099:06.03	4	149	8	On	
077		1309	7 Sep 00	1200	N16:14.51	W098:50.18	2	126	9	On	
077		1310	7 Sep 00	1243	N16:16.01	W098:49.69	3	92	9	On	
077		1314	7 Sep 00	1614	N16:23.07	W099:16.08	3	126	1	On	
077		146	10 Sep 00	1253	S02:15.22	W126:15.17	5	188	3	On	
077		150	11 Sep 00	0822	S04:42.60	W126:00.30	5	73	15	On	
077		152	11 Sep 00	0945	S04:42.63	W125:53.76	5	73	26	On	
077		160	12 Sep 00	0736	S04:46.50	W123:08.68	5	188	1	Off	
077		170	13 Sep 00	1714	S04:18.86	W118:48.60	5	7	10	On	
077		1335	14 Sep 00	1534	N14:48.65	W105:06.88	3	200	1	On	
077		1340	15 Sep 00	1159	N13:23.66	W107:09.48	3	91	2	On	
077 018		1339	15 Sep 00	1050	N13:29.90	W107:00.34	3	4	1	Off	
077		1337	15 Sep 00	0941	N13:34.60	W106:54.09	3	92	7	On	
077		1336	15 Sep 00	0804	N13:44.06	W106:40.96	3	120	10	Off	
077		176	17 Sep 00	1019	S00:16.56	W111:07.39	4	196	1	On	
077		186	20 Sep 00	1450	N03:28.77	W105:18.53	5	125	1	On	
077		1346	21 Sep 00	1410	N06:22.64	W106:40.54	4	197	24	On	
077		1347	21 Sep 00	1436	N06:26.61	W106:41.08	4	197	4	Off	
077		1345	21 Sep 00	1321	N06:19.55	W106:47.56	4	126	1	On	
077		1344	21 Sep 00	1208	N06:14.99	W106:57.24	4	149	2	On	
077		1348	22 Sep 00	0956	N07:51.56	W104:58.92	4	91	10	On	
077 021		191	22 Sep 00	1048	N04:22.12	W099:35.97	4	196	1	On	
077		1370	23 Sep 00	1819	N10:12.99	W102:07.73	1	149	4	On	
077		196	23 Sep 00	0939	N05:25.83	W096:24.00	3	196	10	On	
077		197	23 Sep 00	0956	N05:21.11	W096:13.65	3	196	4	On	
077		1366	23 Sep 00	1706	N10:09.91	W102:19.31	2	92	8	On	
077		1367	23 Sep 00	1724	N10:07.36	W102:10.97	2	149	13	On	
077		1354	23 Sep 00	0847	N09:22.87	W102:58.61	3	126	1	On	
077		205	23 Sep 00	1538	N05:34.39	W095:31.16	4	73	70	Off	
077 018		1376	24 Sep 00	0718	N11:09.96	W100:56.99	1	92	6	On	
077		1372	24 Sep 00	0653	N11:01.99	W100:57.23	1	149	2	On	
077		1375	24 Sep 00	0659	N11:09.97	W100:55.33	1	126	3	Off	
077		1379	24 Sep 00	0756	N11:11.06	W100:49.33	1	126	16	Off	
077		1381	24 Sep 00	0831	N11:11.97	W100:42.74	1	126	20	On	
077		1382	24 Sep 00	0833	N11:14.31	W100:45.64	1	126	4	On	
077		1386	24 Sep 00	1008	N11:19.58	W100:30.58	1	92	12	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Effort size	Effort fort
077		1373	24 Sep 00	0654	N11:10.06	W100:56.82	1	149	11	On	
077		214	24 Sep 00	1800	N07:08.11	W092:30.56	5	199	20	On	
077		1380	24 Sep 00	0829	N11:08.54	W100:44.77	1	126	8	On	
077		1385	24 Sep 00	1001	N11:22.72	W100:29.20	1	149	5	On	
077		1387	24 Sep 00	1010	N11:15.00	W100:31.26	1	200	10	On	
077		210	24 Sep 00	1217	N06:24.90	W093:25.09	5	125	40	On	
077		1404	25 Sep 00	1102	N12:22.03	W097:32.51	3	149	10	Off	
077		1403	25 Sep 00	1048	N12:24.36	W097:33.74	3	149	5	On	
077		1408	25 Sep 00	1504	N12:38.26	W097:06.74	3	126	2	On	
077		1407	25 Sep 00	1444	N12:29.24	W097:08.79	3	149	1	On	
077		1413	25 Sep 00	1746	N12:25.95	W096:45.22	3	91	6	On	
077		1417	26 Sep 00	1645	N13:19.68	W094:03.95	2	149	10	On	
077		220	26 Sep 00	1453	N07:42.64	W089:29.64	5	188	5	On	
077		1421	27 Sep 00	1026	N13:34.26	W092:07.80	4	4	8	Off	
077		224	27 Sep 00	0706	N07:24.59	W088:33.44	4	73	10	Off	
077		227	27 Sep 00	0822	N07:28.40	W088:24.48	4	199	5	Off	
077		228	27 Sep 00	1300	N08:09.07	W088:06.36	4	188	10	On	
077		229	27 Sep 00	1307	N08:08.71	W088:12.86	4	188	5	On	
077		233	27 Sep 00	1430	N08:07.79	W087:59.41	4	188	20	On	
077		1420	27 Sep 00	0959	N13:41.72	W092:09.47	4	197	1	On	
077		1423	27 Sep 00	1205	N13:34.47	W091:52.85	4	91	4	On	
077		226	27 Sep 00	0807	N07:25.48	W088:27.61	4	199	4	On	
077		1436	27 Sep 00	1743	N13:29.86	W091:04.97	3	197	4	On	
077		223	27 Sep 00	0658	N07:17.25	W088:37.26	4	125	7	On	
077		237	28 Sep 00	1145	N08:37.18	W086:23.42	6	199	1	On	
077		1439	28 Sep 00	0856	N12:59.73	W089:12.75	3	92	6	On	
077		1454	30 Sep 00	1117	N09:56.55	W085:57.42	3	149	60	On	
077		1462	30 Sep 00	1652	N09:26.74	W085:16.79	4	4	8	Off	
077		243	5 Oct 00	1429	N09:14.87	W084:37.35	2	197	10	On	
077		247	6 Oct 00	0806	N07:29.04	W084:52.61	2	92	30	On	
077		248	6 Oct 00	0817	N07:28.49	W084:57.51	2	200	15	Off	
077		253	6 Oct 00	1408	N07:08.22	W085:44.57	2	91	50	On	
077		1473	6 Oct 00	0718	N08:07.52	W083:33.12	2	145	1	Off	
077		1503	8 Oct 00	0703	N06:18.26	W083:23.18	4	188	15	On	
077		1508	8 Oct 00	1402	N06:22.76	W084:14.50	3	7	5	On	
077		265	8 Oct 00	1127	N04:36.57	W090:50.42	4	149	8	On	
077		1511	9 Oct 00	0648	N07:36.52	W085:45.00	2	199	30	On	
077		1514	9 Oct 00	0742	N07:51.77	W085:41.04	3	73	2	On	
077		1517	9 Oct 00	1345	N08:33.41	W086:18.23	4	125	4	On	
077		1523	9 Oct 00	1812	N08:54.58	W086:40.96	2	73	400	On	
077		1524	9 Oct 00	1828	N09:01.96	W086:41.15	2	73	300	On	
077		1527	10 Oct 00	1353	N11:02.79	W088:16.20	5	73	20	On	
077		1528	10 Oct 00	1449	N11:08.92	W088:23.53	4	196	7	On	
077		1529	10 Oct 00	1828	N11:44.13	W088:46.29	2	199	250	On	
077		270	10 Oct 00	0727	N00:56.20	W094:53.17	5	126	11	On	
077	002	272	10 Oct 00	0935	N00:42.76	W095:08.28	4	197	87	On	
077		1534	11 Oct 00	1548	N09:40.95	W090:23.76	5	196	5	On	
077	015	286	12 Oct 00	1741	S04:41.90	W099:59.30	4	92	3	On	
077		1542	12 Oct 00	1712	N10:02.36	W091:04.64	4	125	3	On	
077		292	14 Oct 00	1056	S08:42.02	W103:29.80	4	91	9	On	
077		1554	14 Oct 00	0926	N09:26.59	W093:31.20	2	196	3	On	
077		1557	14 Oct 00	1422	N09:01.25	W094:01.64	1	188	8	Off	
077		1570	15 Oct 00	1309	N08:42.89	W096:24.23	2	196	72	Off	
077		1572	15 Oct 00	1440	N08:48.25	W096:30.83	2	7	1	On	
077		1575	15 Oct 00	1607	N08:32.98	W096:39.34	0	196	14	On	
077		1581	15 Oct 00	1904	N08:39.69	W097:06.31	3	188	2	On	
077		298	17 Oct 00	1701	S09:35.35	W096:36.48	5	197	5	On	
077		1587	17 Oct 00	1027	N10:10.62	W100:04.83	5	199	2	On	
077		1590	18 Oct 00	1101	N11:24.53	W097:37.13	5	98	12	Off	
077		1592	18 Oct 00	1853	N11:43.45	W096:43.24	5	199	8	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
077		1601	20 Oct 00	1147	N15:47.14	W097:22.60	2	188	5	On	
077		1617	22 Oct 00	1247	N14:08.43	W092:04.58	2	188	2	On	
077		1618	22 Oct 00	1305	N14:03.36	W092:08.57	2	196	5	On	
077		1626	22 Oct 00	1814	N13:36.59	W091:40.64	1	73	1	On	
077		312	22 Oct 00	1716	S12:21.24	W083:57.01	5	99	5	Off	
077		319	24 Oct 00	0918	S12:28.44	W079:15.66	5	126	4	On	
077		1628	29 Oct 00	1828	N13:42.51	W091:04.11	3	188	4	On	
077		1630	30 Oct 00	0753	N12:31.00	W092:31.69	4	7	1	On	
077		331	30 Oct 00	1438	S09:08.05	W079:10.01	2	149	100	On	
077		1644	31 Oct 00	1101	N10:02.13	W094:59.21	2	4	46	Off	
077 017		1646	31 Oct 00	1534	N09:53.70	W095:27.93	3	73	19	On	
077		1647	31 Oct 00	1655	N09:49.31	W095:38.29	3	73	1	On	
077		1645	31 Oct 00	1457	N09:59.42	W095:18.47	3	125	5	On	
077		345	1 Nov 00	0657	S08:52.52	W081:35.98	3	197	8	On	
077		1656	1 Nov 00	1436	N08:06.84	W097:23.15	4	188	30	Off	
077		1660	1 Nov 00	1753	N07:56.87	W097:27.96	2	188	2	On	
077		354	2 Nov 00	1304	S07:02.08	W081:55.31	4	71	1	On	
077		1669	3 Nov 00	1132	N06:19.61	W101:28.65	5	73	1	On	
077		365	4 Nov 00	0745	S04:50.28	W081:28.63	2	200	15	On	
077		381	6 Nov 00	1336	S00:19.33	W083:30.52	3	200	1	On	
077		384	7 Nov 00	0635	S01:01.34	W081:43.87	3	149	50	On	
077		392	7 Nov 00	1058	S00:55.99	W081:08.87	3	92	6	On	
077		397	8 Nov 00	0940	N01:02.24	W082:03.59	5	126	1	On	
077		405	9 Nov 00	1356	N01:24.72	W079:44.24	5	92	2	Off	
077		1685	9 Nov 00	0941	N08:46.43	W111:40.85	5	196	12	On	
077		1692	9 Nov 00	1811	N09:24.48	W110:37.92	5	7	1	On	
077		406	10 Nov 00	0634	N02:49.86	W078:16.56	3	197	12	On	
077		409	10 Nov 00	1714	N03:09.39	W077:54.27	4	197	3	On	
077		1698	11 Nov 00	0903	N11:15.86	W107:56.10	4	4	1	Off	
077		411	11 Nov 00	0807	N03:47.94	W077:34.09	4	99	2	Off	
077		427	13 Nov 00	1538	N08:00.43	W078:53.02	2	126	4	On	
077		1713	14 Nov 00	0911	N16:38.84	W100:41.87	0	199	2	Off	
077		1718	14 Nov 00	1448	N17:12.81	W101:18.81	2	188	2	On	
077		1721	15 Nov 00	0828	N17:40.90	W102:31.56	2	7	1	On	
077		1725	15 Nov 00	1218	N17:59.63	W103:03.89	4	7	6	On	
077		436	19 Nov 00	0851	N06:19.21	W079:19.40	5	92	10	On	
077		437	19 Nov 00	1033	N06:05.54	W079:17.14	5	126	10	On	
077		1731	20 Nov 00	1215	N18:59.05	W104:30.32	1	188	4	On	
077		1733	20 Nov 00	1527	N18:37.53	W104:38.65	2	196	14	Off	
077		438	20 Nov 00	0832	N05:15.50	W080:25.50	3	149	10	On	
077		444	20 Nov 00	1623	N05:13.03	W081:37.83	3	126	2	On	
077		441	20 Nov 00	1135	N05:10.49	W080:54.14	4	149	5	On	
077		448	21 Nov 00	1656	N05:15.60	W085:01.56	3	197	1	Off	
077		449	21 Nov 00	1739	N05:31.50	W085:12.29	3	126	1	On	
077		1737	21 Nov 00	0849	N16:38.16	W105:12.84	4	188	7	On	
077		1738	21 Nov 00	1024	N16:31.39	W105:27.94	4	199	10	On	
077		451	22 Nov 00	0705	N05:30.41	W086:39.59	3	149	3	Off	
077		1742	22 Nov 00	0627	N15:20.76	W107:58.00	4	188	3	On	
077		1748	22 Nov 00	1445	N15:03.05	W109:11.00	5	7	1	On	
077		453	23 Nov 00	0748	N05:35.21	W088:47.96	3	92	4	On	
077		458	23 Nov 00	1501	N05:31.86	W090:01.60	3	126	5	On	
077		460	23 Nov 00	1719	N05:43.98	W090:25.85	2	91	20	Off	
077		1750	23 Nov 00	1126	N14:08.06	W110:54.31	5	99	2	Off	
077		464	24 Nov 00	1257	N05:46.28	W092:48.41	3	92	12	On	
077		482	26 Nov 00	1523	N07:27.05	W098:43.47	3	149	1	On	
077		485	27 Nov 00	0717	N07:40.85	W100:38.37	3	91	5	On	
077		486	27 Nov 00	0905	N07:53.45	W100:53.64	4	92	35	On	
077		488	27 Nov 00	1115	N07:58.49	W101:13.91	3	91	19	On	
077		1766	27 Nov 00	0730	N16:18.70	W119:37.78	4	7	3	On	
077 002		492	28 Nov 00	0747	N08:40.43	W103:27.93	3	149	12	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School	Ef- fort
		Number	Date	Time	Latitude	Longitude	Bft.	no.	size	
077		500	29 Nov 00	1026	N09:08.65	W107:12.93	4	126	20	Off
077		501	29 Nov 00	1323	N09:13.36	W107:37.15	4	91	5	On
077		1778	29 Nov 00	0718	N17:41.15	W114:27.69	3	125	4	On
077		511	30 Nov 00	1251	N10:23.39	W109:56.24	4	91	4	On
077		1785	30 Nov 00	0833	N18:29.52	W111:02.76	3	196	15	On
077		1788	1 Dec 00	1640	N19:32.52	W110:49.13	3	196	6	Off
077		524	3 Dec 00	1411	N17:00.69	W114:56.12	4	91	4	On
077		525	3 Dec 00	1557	N17:15.54	W114:58.75	3	99	30	Off
077		526	3 Dec 00	1610	N17:14.85	W115:06.71	3	126	1	Off
077		1796	3 Dec 00	1155	N19:00.87	W116:17.03	1	7	25	Off
077		1798	3 Dec 00	1234	N18:56.21	W116:14.03	2	188	7	On
077		1799	3 Dec 00	1236	N19:05.23	W116:15.28	2	196	5	Off
077	018	527	4 Dec 00	0737	N19:29.00	W114:39.85	2	92	29	On
077		530	4 Dec 00	1015	N19:46.28	W114:39.38	3	197	5	On
077		534	4 Dec 00	1233	N20:03.52	W114:29.91	3	92	30	On
077		538	5 Dec 00	0803	N22:19.41	W113:12.68	3	126	5	On
077		553	5 Dec 00	1448	N23:07.32	W113:28.75	3	126	1	On
077		555	5 Dec 00	1456	N23:10.67	W113:26.67	3	92	50	Off
077		557	6 Dec 00	0721	N25:01.01	W113:47.27	3	126	3	Off
077		1819	6 Dec 00	1625	N27:26.30	W118:33.54	4	188	2	On
077		566	7 Dec 00	1438	N28:34.30	W116:28.36	5	126	2	On
unid. small whale										
078		1048	1 Aug 00	1639	N26:58.27	W114:18.62	3	92	2	On
078		1118	8 Aug 00	1046	N21:47.57	W109:03.54	1	99	1	Off
078		50	11 Aug 00	1253	N11:31.12	W128:53.72	2	99	1	Off
078		142	8 Sep 00	1813	N02:07.72	W129:05.27	4	7	1	On
078		141	8 Sep 00	1620	N02:18.80	W129:14.91	4	196	2	On
078		143	9 Sep 00	1336	N00:30.00	W127:09.17	4	7	1	On
078		1355	23 Sep 00	0914	N09:31.19	W103:00.89	3	91	1	On
078		1388	24 Sep 00	1103	N11:23.40	W100:23.59	3	126	2	On
078		1390	24 Sep 00	1156	N11:27.42	W100:15.06	3	92	1	On
078		1398	24 Sep 00	1659	N11:45.83	W099:41.80	2	200	2	On
078		244	5 Oct 00	1630	N08:53.20	W084:31.52	2	91	4	On
078		251	6 Oct 00	1154	N07:18.46	W085:26.87	2	92	4	On
078		1472	6 Oct 00	0705	N08:07.28	W083:30.07	2	7	2	On
078		250	6 Oct 00	1132	N07:22.67	W085:22.15	2	149	1	On
078		1559	14 Oct 00	1722	N08:46.81	W094:15.46	3	196	1	On
078		1633	30 Oct 00	1012	N12:17.47	W092:41.33	4	7	1	On
078		416	13 Nov 00	0637	N07:09.17	W078:14.16	1	99	1	Off
078		1706	13 Nov 00	1635	N15:44.66	W102:01.74	1	199	2	On
078		473	25 Nov 00	1037	N06:15.13	W095:17.76	2	91	1	On
078		544	5 Dec 00	1155	N22:44.89	W113:20.29	3	197	1	On
078		565	7 Dec 00	1356	N28:27.83	W116:26.00	4	99	1	Off
078		1821	8 Dec 00	0901	N31:16.05	W116:58.66	5	188	1	On
unid. large whale										
079		1046	1 Aug 00	1447	N27:02.77	W114:24.13	2	92	1	On
079		12	6 Aug 00	0653	N18:37.41	W119:24.60	4	7	1	On
079		1105	7 Aug 00	0614	N23:16.22	W110:41.31	5	92	1	On
079		100	17 Aug 00	1448	N04:17.19	W140:30.86	5	199	1	On
079		121	24 Aug 00	0832	N19:08.21	W155:56.25	2	125	1	Off
079		127	1 Sep 00	0939	N18:12.44	W151:12.62	5	196	3	On
079		161	12 Sep 00	0847	S04:43.04	W122:56.60	5	99	1	Off
079		202	23 Sep 00	1246	N05:27.91	W095:46.79	3	188	1	Off
079		289	13 Oct 00	1747	S07:09.63	W102:09.89	5	126	1	On
079		296	17 Oct 00	0659	S09:38.67	W098:15.99	5	126	1	On
079		317	23 Oct 00	1526	S12:27.89	W081:45.06	4	99	1	Off
079		1634	30 Oct 00	1238	N12:02.84	W093:01.39	4	188	2	On
079		347	1 Nov 00	0939	S08:55.81	W081:59.41	3	98	1	Off

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Size	Ef- fort
079		366	4 Nov 00	1130	S04:21.25	W081:22.76	5	200	1	On	
079		370	5 Nov 00	0611	S02:30.20	W081:08.26	4	91	1	On	
079		379	6 Nov 00	0922	S00:53.90	W083:37.04	3	200	1	On	
<i>Kogia</i> sp.											
080		1184	15 Aug 00	1250	N19:47.15	W105:36.44	2	92	1	On	
080		418	13 Nov 00	0748	N07:10.20	W078:18.05	1	126	2	On	
<i>Mesoplodon</i> sp. A											
083		1205	20 Aug 00	1205	N17:12.90	W106:45.39	0	126	2	On	
083		1211	20 Aug 00	1526	N17:08.31	W107:08.74	1	92	4	On	
083		1391	24 Sep 00	1226	N11:29.65	W100:12.97	3	91	4	On	
083		1605	20 Oct 00	1515	N15:43.15	W097:04.71	2	125	4	On	
083		1640	31 Oct 00	0730	N10:26.28	W094:38.37	3	188	1	Off	
<i>Stenella attenuata</i> (unid. subsp.)											
090		1132	10 Aug 00	0845	N24:36.69	W108:13.46	3	126	108	On	
090		1140	10 Aug 00	1812	N23:37.37	W107:13.46	3	91	3	On	
090		1139	10 Aug 00	1714	N23:46.57	W107:20.44	3	91	183	On	
090		1141	10 Aug 00	1858	N23:30.80	W107:09.46	3	126	84	On	
090 010		1143	11 Aug 00	0832	N23:30.18	W107:03.57	3	92	61	On	
090 003		1188	15 Aug 00	1527	N19:34.93	W105:17.12	3	92	858	On	
090		1190	15 Aug 00	1834	N19:14.31	W105:05.78	3	91	115	On	
090		1187	15 Aug 00	1341	N19:38.05	W105:30.90	2	92	48	On	
090		1182	15 Aug 00	1129	N19:54.69	W105:42.70	1	200	27	On	
090		1185	15 Aug 00	1257	N19:39.68	W105:32.25	2	197	54	On	
090		1178	15 Aug 00	0955	N20:03.41	W105:41.78	1	200	27	On	
090		1181	15 Aug 00	1040	N20:00.16	W105:44.10	1	126	10	On	
090		1179	15 Aug 00	1025	N19:59.95	W105:44.91	1	98	13	Off	
090 015		1193	19 Aug 00	1601	N18:39.58	W104:52.62	3	197	44	Off	
090		1194	19 Aug 00	1707	N18:33.09	W104:56.13	2	92	22	On	
090		1197	19 Aug 00	1907	N18:17.78	W105:14.50	1	126	101	On	
090 077		1192	19 Aug 00	1457	N18:40.48	W104:45.13	3	91	57	On	
090 010		1191	19 Aug 00	1407	N18:45.44	W104:43.87	3	92	32	On	
090		1308	7 Sep 00	1133	N16:14.07	W098:43.69	2	200	15	On	
090		1306	7 Sep 00	0915	N16:03.15	W098:27.59	3	197	207	On	
090		1307	7 Sep 00	1102	N16:11.11	W098:41.61	2	91	16	On	
090		1312	7 Sep 00	1453	N16:26.78	W099:07.52	4	91	52	On	
090		1311	7 Sep 00	1332	N16:24.21	W099:00.45	4	126	270	On	
090		1322	12 Sep 00	1520	N16:58.84	W100:33.41	2	92	17	On	
090		1316	12 Sep 00	1043	N16:48.49	W099:54.53	3	91	10	Off	
090		1317	12 Sep 00	1110	N16:51.86	W099:59.63	2	92	23	On	
090		1319	12 Sep 00	1258	N16:54.29	W100:18.31	1	92	42	On	
090		1320	12 Sep 00	1335	N16:57.20	W100:17.94	1	197	19	On	
090		1323	12 Sep 00	1541	N16:57.94	W100:41.60	2	126	88	On	
090		1329	13 Sep 00	1805	N15:58.48	W103:27.48	4	4	18	Off	
090		1438	28 Sep 00	0748	N13:04.07	W089:23.97	3	149	11	On	
090		1596	20 Oct 00	0907	N15:48.53	W097:43.82	1	196	58	On	
090		1597	20 Oct 00	0942	N15:51.20	W097:38.61	1	7	41	On	
090		1603	20 Oct 00	1239	N15:42.81	W097:21.07	1	125	108	On	
090 018		1604	20 Oct 00	1512	N15:40.64	W097:01.28	2	7	335	On	
090		1598	20 Oct 00	1009	N15:53.94	W097:34.96	2	188	115	On	
090		1622	22 Oct 00	1605	N13:49.06	W091:46.15	2	7	5	On	
090		1623	22 Oct 00	1614	N13:52.48	W091:53.31	2	4	20	Off	
090		394	7 Nov 00	1610	S00:18.44	W080:46.73	5	200	360	On	
090		407	10 Nov 00	1514	N02:58.68	W078:04.47	3	99	5	Off	
090		410	11 Nov 00	0630	N03:33.97	W077:29.27	4	149	6	On	
090		412	11 Nov 00	0834	N03:51.63	W077:37.02	4	126	8	Off	
090		414	12 Nov 00	1626	N06:35.07	W077:39.48	3	91	56	On	
090		429	13 Nov 00	1709	N08:08.73	W079:09.72	2	200	8	On	

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting						Obs.	School	Ef- fort
		Number	Date	Time	Latitude	Longitude	Bft.	no.	size	
090		1729	15 Nov 00	1614	N18:06.36	W103:27.18	4	199	113	On
090		432	18 Nov 00	1310	N08:41.69	W079:30.25	2	92	29	Off
<b>unid. cetacean</b>										
096		1138	10 Aug 00	1504	N24:01.67	W107:33.26	1	92	1	On
096		1228	21 Aug 00	1502	N16:21.18	W109:45.44	3	92	2	On
096		1290	5 Sep 00	0752	N12:58.15	W102:09.00	3	98	3	Off
096		1371	23 Sep 00	1820	N10:15.08	W102:05.68	1	149	2	Off
096		1364	23 Sep 00	1516	N09:57.46	W102:27.87	1	200	2	Off
096		1609	20 Oct 00	1813	N15:34.87	W096:42.60	1	73	1	Off
096		431	13 Nov 00	1735	N08:10.81	W079:18.42	2	92	2	On
096		443	20 Nov 00	1443	N05:12.26	W081:20.18	3	99	1	Off
<b>unid. whale</b>										
098		4	2 Aug 00	1329	N20:24.10	W124:38.73	4	196	1	On
098		85	14 Aug 00	1850	N07:57.19	W133:42.54	4	99	1	Off
098		96	16 Aug 00	1825	N05:09.46	W138:00.97	4	125	1	On
098		171	13 Sep 00	1730	S04:20.49	W118:45.17	5	199	1	Off
098		203	23 Sep 00	1311	N05:26.22	W095:45.81	3	125	1	On
098		280	11 Oct 00	1549	S01:44.31	W097:12.92	4	99	1	Off
098		362	3 Nov 00	1250	S06:30.10	W081:08.45	0	126	1	On
<b><i>Balaenoptera borealis/edeni</i></b>										
099		1047	1 Aug 00	1559	N27:02.75	W114:20.30	3	126	1	On
099		1054	2 Aug 00	0943	N25:19.60	W112:56.15	3	91	1	On
099		1107	7 Aug 00	0700	N23:10.47	W110:43.47	4	126	1	On
099		70	12 Aug 00	1727	N13:17.08	W131:54.35	0	199	1	On
099		110	21 Aug 00	0653	N09:38.12	W149:06.89	3	73	1	Off
099		1224	21 Aug 00	1226	N16:24.40	W109:37.86	3	126	1	On
099		1256	26 Aug 00	1436	N12:22.97	W115:37.87	4	197	1	On
099		163	12 Sep 00	1213	S04:33.97	W122:19.84	5	199	1	On
099		165	13 Sep 00	1242	S04:24.98	W119:18.42	5	7	2	On
099		167	13 Sep 00	1447	S04:26.29	W118:57.46	5	73	1	Off
099		187	20 Sep 00	1528	N03:30.39	W105:14.71	5	99	1	Off
099	070	1341	21 Sep 00	0835	N06:02.30	W107:06.46	4	92	3	On
099		269	9 Oct 00	1804	N01:29.85	W094:18.30	5	200	3	On
099		290	14 Oct 00	0720	S08:17.77	W103:08.19	5	91	2	On
099		305	20 Oct 00	1813	S10:27.79	W088:45.79	4	200	2	On
099		307	21 Oct 00	1413	S11:40.60	W086:55.12	4	149	1	On
099		330	30 Oct 00	1307	S09:17.54	W079:03.06	2	126	2	On
099	076	343	31 Oct 00	1522	S08:23.98	W080:00.89	3	126	1	On
099		351	1 Nov 00	1712	S08:27.46	W082:44.11	4	99	1	Off
099	037	426	13 Nov 00	1420	N07:50.17	W078:57.34	3	126	1	On
099		506	29 Nov 00	1712	N09:17.52	W108:10.64	4	149	1	On
099		520	2 Dec 00	1638	N14:50.32	W113:23.09	3	200	1	On
099		531	4 Dec 00	1023	N19:46.84	W114:37.33	3	98	1	Off
<b><i>Stenella longirostris (southwestern)</i></b>										
101	013	29	8 Aug 00	1126	N12:39.51	W122:40.98	5	73	30	On
101	002	156	11 Sep 00	1353	S04:45.82	W125:27.08	4	73	22	On
101		155	11 Sep 00	1253	S04:44.51	W125:36.02	4	199	253	On
101	002	154	11 Sep 00	1126	S04:45.54	W125:45.74	5	125	360	On
101	002	162	12 Sep 00	1011	S04:37.95	W122:40.40	5	196	70	On
101	002	159	12 Sep 00	0634	S04:42.25	W123:11.53	4	196	55	On
101	002	1823	20 Sep 00	0935	N05:08.15	W109:58.48	5	92	33	On
101		284	12 Oct 00	1521	S04:28.66	W099:43.01	4	91	22	On
101		1765	26 Nov 00	1149	N15:05.35	W117:11.62	4	7	52	On
<b><i>Arctocephalus townsendi</i></b>										
AT		906	29 Jul 00	1413	N30:05.17	W119:01.92	4	73	1	On

Table 2. Marine mammal sightings (continued)

Other Code	Other Codes	Sighting Number	Date	Time	Latitude	Longitude	Bft.	Obs. no.	School no.	Eff. size	fort
AT		1040	1 Aug 00	1302	N26:57.63	W114:40.94	1	91	1	On	
AT		1039	1 Aug 00	1302	N26:56.96	W114:40.79	1	197	1	On	
AT		1038	1 Aug 00	1252	N26:58.11	W114:40.51	1	91	1	On	
AT		1036	1 Aug 00	1228	N26:55.79	W114:46.01	2	92	1	On	
AT 036		1035	1 Aug 00	1104	N26:56.30	W114:45.71	2	197	1	On	
AT		1049	1 Aug 00	1708	N26:55.48	W114:17.45	3	91	3	On	
AT		563	7 Dec 00	1028	N27:55.80	W116:22.15	3	92	1	On	
<i>Mirounga angustirostris</i>											
MA		1007	30 Jul 00	0724	N29:57.71	W116:06.10	2	197	1	On	
MA		1026	31 Jul 00	1735	N27:22.89	W114:55.12	3	92	1	On	
MA		568	8 Dec 00	0816	N30:23.89	W116:10.07	5	92	1	On	
unid. pinniped											
PU		905	29 Jul 00	1352	N30:07.36	W118:59.31	4	73	1	On	
PU		1032	1 Aug 00	0940	N26:50.18	W115:02.47	1	197	1	Off	
PU		1090	6 Aug 00	1407	N23:58.45	W112:16.39	2	126	1	On	
PU		1085	6 Aug 00	1204	N23:46.91	W112:30.33	4	92	1	On	
PU 018		326	29 Oct 00	1731	S11:12.71	W077:54.17	2	126	8	On	
unid. fur seal											
UA		1084	6 Aug 00	1147	N23:45.55	W112:34.26	4	200	1	On	
unid. sea lion											
UO		1002	29 Jul 00	1600	N31:55.18	W117:03.68	3	126	1	On	
UO		909	29 Jul 00	1635	N29:45.33	W119:16.37	4	99	1	Off	
UO		1042	1 Aug 00	1345	N26:58.53	W114:36.63	1	92	1	On	
UO		1044	1 Aug 00	1359	N26:58.67	W114:35.61	2	92	1	On	
UO		1037	1 Aug 00	1244	N26:57.12	W114:43.04	2	92	1	On	
UO		1045	1 Aug 00	1400	N26:56.91	W114:34.79	2	91	1	On	
UO		1034	1 Aug 00	1006	N26:52.42	W115:00.06	1	92	1	On	
UO		1043	1 Aug 00	1345	N26:55.08	W114:37.22	1	91	1	On	
UO		1081	6 Aug 00	0820	N23:37.29	W112:51.92	4	92	2	On	
UO		1112	7 Aug 00	1620	N22:18.57	W110:20.63	4	92	1	On	
UO		547	5 Dec 00	1256	N22:55.93	W113:22.01	2	197	1	On	
UO		548	5 Dec 00	1306	N22:55.92	W113:23.04	2	200	1	On	
UO		549	5 Dec 00	1407	N23:06.85	W113:26.13	2	92	1	On	
UO		546	5 Dec 00	1255	N22:53.03	W113:22.34	2	91	1	On	
UO		551	5 Dec 00	1409	N23:07.29	W113:24.48	2	200	1	On	
UO		552	5 Dec 00	1443	N23:07.63	W113:24.61	3	149	1	On	
UO		541	5 Dec 00	1034	N22:31.20	W113:18.59	3	92	1	On	
UO		543	5 Dec 00	1112	N22:38.09	W113:17.29	3	149	1	On	
UO		545	5 Dec 00	1243	N22:51.61	W113:22.04	2	200	1	On	
<i>Zalophus californianus</i>											
ZC		901	29 Jul 00	1210	N30:22.04	W118:50.35	4	196	2	On	
ZC		902	29 Jul 00	1318	N30:12.43	W118:56.47	4	125	2	On	
ZC		907	29 Jul 00	1431	N30:02.44	W119:04.52	4	125	1	On	
ZC		903	29 Jul 00	1330	N30:10.09	W118:58.47	4	188	2	On	
ZC		908	29 Jul 00	1520	N29:56.60	W119:09.07	4	196	1	On	
ZC		904	29 Jul 00	1338	N30:08.40	W118:59.00	4	73	1	On	
ZC		1089	6 Aug 00	1308	N23:53.01	W112:25.09	2	197	1	On	
ZC		1088	6 Aug 00	1256	N23:51.17	W112:24.73	2	200	1	On	
ZC		542	5 Dec 00	1105	N22:37.21	W113:18.69	3	126	1	On	

Table 3. Summary of STAR00 marine mammal sightings. Mixed schools are counted once for each sighting-category that occurs in them. School size is the mean of the best estimates of total school size for pure schools and subgroup size of the sighting-category in the case of mixed schools.

Code	Sighting-Category	Pure Schools	Mixed Schools	Total Sightings	School Size
077	unid. dolphin	230	14	244	13.8
013	<i>Stenella coeruleoalba</i>	157	8	165	43.1
018	<i>Tursiops truncatus</i>	107	56	163	28.6
002	<i>Stenella attenuata</i> (offshore)	63	91	154	97.8
017	<i>Delphinus delphis</i>	82	5	87	234.7
010	<i>Stenella longirostris orientalis</i>	17	57	74	95.1
021	<i>Grampus griseus</i>	38	12	50	20.9
090	<i>Stenella attenuata</i> (unid. subsp.)	40	6	46	84.8
049	ziphid whale	45	0	45	1.9
006	<i>Stenella attenuata graffmani</i>	39	5	44	91.9
036	<i>Globicephala macrorhynchus</i>	27	13	40	22.5
072	<i>Balaenoptera edeni</i>	34	0	34	1.4
015	<i>Steno bredanensis</i>	21	12	33	13.5
048	<i>Kogia sima</i>	30	0	30	2.0
061	<i>Ziphius cavirostris</i>	28	0	28	2.2
070	<i>Balaenoptera</i> sp.	25	2	27	1.8
011	<i>Stenella longirostris</i> (whitebelly)	6	18	24	177.8
099	<i>Balaenoptera borealis/edeni</i>	20	3	23	1.4
075	<i>Balaenoptera musculus</i>	21	1	22	2.4
078	unid. small whale	22	0	22	1.5
UO	unid. sea lion	19	0	19	1.1
037	<i>Orcinus orca</i>	14	3	17	6.0
076	<i>Megaptera novaeangliae</i>	14	3	17	2.3
079	unid. large whale	16	0	16	1.2
051	<i>Mesoplodon</i> sp.	16	0	16	1.5
016	<i>Delphinus capensis</i>	10	1	11	503.9
034	<i>Globicephala</i> sp.	3	7	10	24.7
046	<i>Physeter macrocephalus</i>	10	0	10	5.9
033	<i>Pseudorca crassidens</i>	4	5	9	23.5
101	<i>Stenella longirostris</i> (southwestern)	3	6	9	99.7
ZC	<i>Zalophus californianus</i>	9	0	9	1.3
096	unid. cetacean	8	0	8	1.7
003	<i>Stenella longirostris</i> (unid. subsp.)	1	7	8	27.6
AT	<i>Arctocephalus townsendi</i>	7	1	8	1.3
098	unid. whale	7	0	7	1.0
022	<i>Lagenorhynchus obliquidens</i>	6	0	6	17.7
083	<i>Mesoplodon</i> sp. A	5	0	5	3.3
025	<i>Lagenorhynchus obscurus</i>	4	1	5	39.7
PU	unid. pinniped	4	1	5	2.4
005	<i>Delphinus</i> sp.	3	1	4	252.9
032	<i>Feresa attenuata</i>	3	0	3	19.8
MA	<i>Mirounga angustirostris</i>	3	0	3	1.0
080	<i>Kogia</i> sp.	2	0	2	1.5
065	<i>Indopacetus pacificus</i>	0	1	1	8.4
071	<i>Balaenoptera acutorostrata</i>	1	0	1	2.0
001	<i>Mesoplodon peruvianus</i>	1	0	1	3.8
059	<i>Mesoplodon densirostris</i>	1	0	1	2.0
UA	unid. fur seal	1	0	1	1.0
063	<i>Berardius bairdii</i>	1	0	1	12.7

Table 4. Marine mammal schools of mixed species composition during STAR00. Scientific names for each sighting code are listed in Appendix C.

Species 1 code name	Species 2 code name	Species 3 code name	Species 4 code name	Number of Schools
002 OFFSH_SPOT	010 EAST_SPINR			50
011 WBEL_SPINR	002 OFFSH_SPOT			18
018 TURSIOPS	036 SHRT_PILOT			9
021 GRAMPUS	018 TURSIOPS			7
018 TURSIOPS	015 STENO			7
034 GLOBI_SPP	018 TURSIOPS			6
101 SW_SPINNER	002 OFFSH_SPOT			5
002 OFFSH_SPOT	003 UNID_SPINR			5
018 TURSIOPS	077 UNID_DOLPH			4
002 OFFSH_SPOT	010 EAST_SPINR	018 TURSIOPS		4
006 COAST_SPOT	018 TURSIOPS			4
002 OFFSH_SPOT	077 UNID_DOLPH			3
013 STRIPED	017 SHRTB_COMM			3
033 FALSE_KLLR	018 TURSIOPS			3
090 UNID_SPOT	010 EAST_SPINR			2
021 GRAMPUS	077 UNID_DOLPH			2
002 OFFSH_SPOT	018 TURSIOPS			2
018 TURSIOPS	PU UNID_PINNI			1
015 STENO	090 UNID_SPOT			1
017 SHRTB_COMM	077 UNID_DOLPH			1
013 STRIPED	037 KILLER_WHA			1
013 STRIPED	101 SW_SPINNER			1
076 HUMPBACK_W	099 SEI/BRYDES			1
018 TURSIOPS	033 FALSE_KLLR	077 UNID_DOLPH		1
002 OFFSH_SPOT	003 UNID_SPINR	018 TURSIOPS		1
036 SHRT_PILOT	021 GRAMPUS	018 TURSIOPS		1
036 SHRT_PILOT	065 MESOP_PACI	018 TURSIOPS		1
033 FALSE_KLLR	036 SHRT_PILOT			1
018 TURSIOPS	013 STRIPED			1
036 SHRT_PILOT	AT GUAD_FURSL			1
099 SEI/BRYDES	070 UNID_RORQL			1
037 KILLER_WHA	034 GLOBI_SPP	018 TURSIOPS		1
016 LONGB_COMM	025 DUSKY			1
037 KILLER_WHA	099 SEI/BRYDES			1
013 STRIPED	021 GRAMPUS			1
076 HUMPBACK_W	077 UNID_DOLPH			1
075 BLUE_WHALE	070 UNID_RORQL			1
090 UNID_SPOT	003 UNID_SPINR			1
090 UNID_SPOT	077 UNID_DOLPH			1
002 OFFSH_SPOT	015 STENO			1
002 OFFSH_SPOT	013 STRIPED			1
005 UNID_COMM	018 TURSIOPS			1
076 HUMPBACK_W	015 STENO			1
018 TURSIOPS	090 UNID_SPOT			1
017 SHRTB_COMM	002 OFFSH_SPOT			1
021 GRAMPUS	015 STENO	018 TURSIOPS		1
015 STENO	077 UNID_DOLPH			1
006 COAST_SPOT	010 EAST_SPINR			1

Table 5. Effort and sighting rates during STAR00 by sea state and swell height.

	Kilometers of effort	No. of sightings	Sightings per 1000 km
Total	31169.7	1180	37.86
By sea state (Beaufort)			
0	234.7	30	127.81
1	1079.6	120	111.15
2	3278.6	231	70.46
3	7069.0	322	45.55
4	11447.4	313	27.34
5	7915.1	160	20.21
6	145.2	4	27.54
By swell height (ft) <sup>1</sup>			
0	104.7	7	66.85
1	180.2	26	144.32
2	1372.8	101	73.57
3	5422.0	333	61.42
4	10728.4	411	38.31
5	8590.9	194	22.58
6	3680.9	86	23.36
7	914.0	16	17.51
8	147.1	5	33.98
9	3.6	0	0.00

<sup>1</sup> Number of sightings with no swell height recorded = 1

Table 6. Acoustic recordings of single-species sightings of cetaceans obtained using the towed hydrophone array on the *McArthur* during STAR00 (including non-sighted unidentified dolphins and sperm whales).

Species/Stock	Code	Species					Totals
		Leg 1	Leg 2	Leg 3	Leg 4	Leg 5	
<i>Stenella attenuata</i> (offshore)	2	4	0	0	0	3	7
<i>Stenella longirostris orientalis</i>	10	0	0	0	0	3	3
<i>Stenella longirostris</i> (whitebelly)	11	0	0	0	1	0	1
<i>Stenella coeruleoalba</i>	13	9	0	4	8	18	39
<i>Steno bredanensis</i>	15	2	0	0	1	1	4
<i>Delphinus capensis</i>	16	0	0	0	2	0	2
<i>Delphinus delphis</i>	17	1	0	7	10	7	25
<i>Tursiops truncatus</i>	18	6	0	3	4	4	17
<i>Grampus griseus</i>	21	1	0	3	4	2	10
<i>Pseudorca crassidens</i>	33	0	2	0	0	0	2
<i>Globicephala</i> sp.	34	6	0	0	0	0	6
<i>Globicephala macrorhynchus</i>	36	0	0	1	0	2	3
<i>Orcinus orca</i>	37	1	0	0	1	0	2
<i>Physeter macrocephalus</i>	46	5	2	9	4	7	27
Unidentified dolphin	77	61	6	11	17	102	197
<i>Stenella attenuata</i> (unid. subsp.)	90	0	0	0	1	0	1
<b>Totals</b>		<b>96</b>	<b>10</b>	<b>38</b>	<b>53</b>	<b>149</b>	<b>346</b>

Table 7. Acoustic recordings of cetaceans obtained using sonobuoys on both ships during STAR00, listed in decreasing order of recordings obtained.

Species	Recordings
<i>Balaenoptera musculus</i> <sup>1</sup>	11
<i>Balaenoptera edeni</i>	9
<i>Pseudorca crassidens</i>	2
<i>Megaptera novaeangliae</i>	1
<i>Tursiops truncatus/ Globicephala macrorhynchus</i>	1
<b>Total</b>	<b>24</b>

<sup>1</sup> Animals were not heard on every recording

Table 8. Cetacean schools photographed by handheld 35 mm camera and total number of frames taken during STAR00, listed by number of schools photographed.

Sighting-categories	Schools	Frames
<i>Delphinus delphis</i>	20	230
<i>Balaenoptera musculus</i>	17	286
<i>Orcinus orca</i>	15	422
<i>Stenella attenuata</i> (offshore)/ <i>Stenella longirostris orientalis</i>	12	230
<i>Megaptera novaeangliae</i>	11	296
<i>Stenella attenuata</i> (offshore)	11	94
<i>Stenella attenuata graffmani</i>	11	177
<i>Delphinus capensis</i>	8	188
<i>Stenella attenuata</i> (unid. subsp.)	8	117
<i>Balaenoptera edeni</i>	7	120
<i>Globicephala macrorhynchus</i>	6	25
<i>Stenella longirostris orientalis</i>	6	152
<i>Tursiops truncatus</i>	6	32
<i>Stenella bredanensis</i>	5	25
<i>Stenella longirostris</i> (whitebelly)	4	38
<i>Physeter macrocephalus</i>	3	156
<i>Stenella coeruleoalba</i>	3	23
<i>Pseudorca crassidens</i>	2	14
<i>Stenella attenuata</i> (offshore)/ <i>Stenella longirostris</i> (whitebelly)	2	9
<i>Stenella longirostris</i> (southwestern)	2	37
<i>Ziphius cavirostris</i>	2	29
<i>Grampus griseus</i>	1	1
<i>Globicephala</i> sp.	1	2
<i>Indopacetus pacificus</i>	1	6
<i>Lagenorhynchus obliquidens</i>	1	1
<i>Megaptera novaeangliae/Balaenoptera edeni</i>	1	22
<i>Mesoplodon peruvianus</i>	1	8
<i>Stenella attenuata</i> (unid. subsp.)/ <i>Stenella longirostris orientalis</i>	1	13
Totals	168	2753

Table 9. 35 mm photographs of whales from STAR00 that are potentially identifiable as unique individuals.

Sight No.	Date	Position	Location	Species	Skin Sample	Photo Subject	Roll	Frames	Photog.
358	11/02/00	S06:58.13 W081:14.67	coastal Peru	<i>B. musculus</i>	Y	R side	PAO00-19	9-13,15	200
"	"	"	"	"	"	"	SEY00-17	2	197
478	11/26/00	N07:25.93 W097:57.55	W of Costa Rica dome	<i>B. musculus</i>	Y	R side	PAO00-29	2-6,25-27, 33-35	092
"	"	"	"	"	"	L side	PAO00-29	7-11	092
"	"	"	"	"	"	"	SEY00-24	3-6	197
556	12/05/00	N23:21.40 W113:27.89	W of Cabo San Lucas,MX	<i>B. musculus</i>	N	R side	PAO00-30	7-9	092
1013	07/30/00	N29:40.78 W115:53.16	W Baja California,MX	<i>B. musculus</i>	Y	L side, whale 2	PAO00-01	22,24-26,28,29	092
"	"	"	"	"	"	"	SEY00-01	13-16,23,24	197
"	"	"	"	"	"	R side, whale 2	SEY00-01	35	197
"	"	"	"	"	Y	L side, whale 3	PAO00-01	31,33	092
"	"	"	"	"	"	"	SEY00-01	19-21,25	197
"	"	"	"	"	Y	R side, whale 4	PAO00-04	7,19	092
"	"	"	"	"	"	"	SEY00-01	30	197
"	"	"	"	"	"	"	SEY00-02	6	197
"	"	"	"	"	Y	R side, whale 5	PAO00-04	9-11,15,16	092
"	"	"	"	"	"	"	SEY00-01	31,32	197
"	"	"	"	"	"	"	SEY00-02	7-8	197
1015	07/30/00	N29:39.25 W115:57.19	W Baja California,MX	<i>B. musculus</i>	Y	R side, whale 2	PAO00-04	22,28,29	091
"	"	"	"	"	Y	L sides, whales 1 & 2	PAO00-04	32,33	091
1018	07/30/00	N29:32.17 W115:54.88	W Baja California,MX	<i>B. musculus</i>	Y	R side, whale 1	PAO00-02	7,8	091
"	"	"	"	"	Y	R side, whale 2	PAO00-02	15,16	091
1021	07/31/00	N28:30.72 W115:35.84	W Baja California,MX	<i>B. musculus</i>	N	L side, whale 1	PAO00-02	19-22	092
"	"	"	"	"	Y	L side, whale 2	PAO00-02	23	092
"	"	"	"	"	"	"	SEY00-02	20-26	197
1108	08/07/00	N23:06.09 W110:41.26	W of Cabo San Lucas, MX	<i>B. musculus</i>	N	R side	PAO00-02	25-30	091
1548	10/13/00	N10:53.54 W092:03.37	NW of Costa Rica dome	<i>B. musculus</i>	Y	L side	ABD00-11	9,10,14	199
1551	10/13/00	N10:42.45 W092:13.30	NW of Costa Rica dome	<i>B. musculus</i>	N	R side	ILB00-12	29,30, 33,34	196
1561	10/14/00	N08:44.68 W094:17.29	W of Costa Rica dome	<i>B. musculus</i>	Y	L side	ABD00-12	4,8-10	199
1648	10/31/00	N09:48.92 W095:34.77	W of Costa Rica dome	<i>B. musculus</i>	Y	R side	ABD00-16	10-13	199
1651	11/01/00	N08:52.25 W096:33.70	W of Costa Rica dome	<i>B. musculus</i>	Y	R side	ABD00-16	17-19, 25-29	199
1655	11/01/00	N08:16.12 W097:16.79	W of Costa Rica dome	<i>B. musculus</i>	N	R side	ABD00-17	2,6-11, 13,14,17	199
1704	11/12/00	N15:17.42 W102:43.24	SW of Acapulco, MX	<i>B. musculus</i>	Y	L side	ILB00-16	29-32, 34,35	196
320	10/24/00	S12:32.06 W078:55.64	off Lima, Peru	<i>M. novaeangliae</i>	Y	flukes	PAO00-16	14,21-23	092
"	"	"	"	"	"	"	SEY00-13	18	197
"	"	"	"	"	"	L dorsal	PAO00-16	8	092
"	"	"	"	"	"	"	SEY00-13	8,9	197
"	"	"	"	"	"	R dorsal	PAO00-16	12	092
"	"	"	"	"	N	flukes	SEY00-13	13,16,26-28	092
"	"	"	"	"	"	L dorsal	PAO00-16	10,11	092
"	"	"	"	"	"	R dorsal	PAO00-16	27	197

Table 9. Whale ID photographs (continued)

Sight No.	Date	Position	Location	Species	Skin Sample	Photo Subject	Roll	Frames	Photog.
"	"		"	"	N	L dorsal	PAO00-16	9	092
"	"		"	"	"	"	SEY00-13	10,11	092
"	"		"	"	"	R dorsal	SEY00-13	15	092
327	10/30/00	S09:57.19 W079:00.63	coastal Peru	<i>M. novaeangliae</i>	N	L dorsal, mother	PAO00-17	12-15	092
"	"		"	"	"	R dorsal, mother	PAO00-17	3	092
"	"		"	"	Y	L dorsal, calf	PAO00-17	7,10,12,15	092
"	"		"	"	"	R dorsal, calf	PAO00-17	11	092
343	10/31/00	S08:21.17 W079:58.47	coastal Peru	<i>M. novaeangliae</i>	N	R fluke, whale 1	PAO00-19	3	092
"	"		"	"	N	R dorsal, whale 2	PAO00-18	31	092
360	11/03/00	S06:39.03 W080:48.96	coastal Peru	<i>M. novaeangliae</i>	Y	flukes, whale 1	PAO00-21	1	092
"	"		"	"	Y	L dorsal, whale 2	SEY00-18	21-23	197
369	11/04/00	S03:45.94 W080:59.25	coastal Peru	<i>M. novaeangliae</i>	Y	flukes	PAO00-25	27,30	091
"	"		"	"	"	"	SEY00-20	35	197
"	"		"	"	"	L dorsal	PAO00-25	33	091
"	"		"	"	"	R dorsal	PAO00-25	34	091
"	"		"	"	"	"	SEY00-20	34	197
408	11/10/00	N03:04.56 W077:56.38	coastal Colombia	<i>M. novaeangliae</i>	N	L dorsal, mother	PAO00-27	19,20	092
"	"		"	"	"	"	SEY00-22	1,2	197
570	12/08/00	N30:39.34 W116:17.55	NW Baja California, MX	<i>M. novaeangliae</i>	N	L dorsal, whale 1	PAO00-30	15,18	092
"	"		"	"	"	L dorsal, whale 2	PAO00-30	16,17,19	092
1010	07/30/00	N29:41.12 W115:53.16	W Baja California, MX	<i>M. novaeangliae</i>	N	flukes	PAO00-01	12	092
1467	10/5/00	N09:24.61 W084:33.18	coastal Costa Rica	<i>M. novaeangliae</i>	N	R dorsal	ABD00-07	5-6	199
1468	10/5/00	N09:22.17 W084:33.40	coastal Costa Rica	<i>M. novaeangliae</i>	Y	L dorsals, 3 whales	ABD00-07	23-25,27,28	199
"	"		"	"	"	L dorsal	ABD00-09	3,4,19-22,29	199
"	"		"	"	"	R dorsal	ABD00-09	25,27-29	199
1482	10/06/00	N07:51.33 W082:30.35	coastal Panama	<i>M. novaeangliae</i>	Y	L dorsals, 3 whales	ILB00-09	1,4-16	197
"	"		"	"	"	R dorsals	ILB00-08	15-25,28-30	197
"	"		"	"	"	"	ILB00-09	18-21	197
006	08/03/00	N19:45.07 W123:11.05	W of Revillagigedos Is.	<i>O. orca</i>	N	L sides, 2 whales	ABD00-01	5,7-11	199
"	"		"	"	"	"	ILB00-02	1-16	196
144	09/09/00	N00:23.46 W127:01.67	offshore	<i>O. orca</i>	N	R sides	ABD00-04	23,25,30-36	199
403	11/09/00	N01:35.19 W080:06.19	coastal Ecuador	<i>O. orca</i>	N	L sides, 3 whales	PAO00-27	4,5,12-15	092
"	"		"	"	"	"	SEY00-21	24-25,31-33	197
"	"		"	"	"	R sides	PAO00-27	1,6-11	092
"	"		"	"	"	"	SEY00-21	26-28	197
426		N07:51.23 W078:51.39	Gulf of Panama	<i>O. orca</i>	N	L side	PAO00-28	30	091
"	"		"	"	"	"	SEY00-23	26-27	197
1121	08/08/00	N21:54.99 W108:48.27	S of Cabo San Lucas, MX	<i>O. orca</i>	Y	L sides, 4 whales	PAO00-03	3,6,10-14	092
"	"		"	"	"	"	SEY00-03	12-14,17,18,23-31, 34,35	197
"	"		"	"	"	"	SEY00-04	1	197
"	"		"	"	"	R sides	PAO00-03	7,9,16-18	092
"	"		"	"	"	"	SEY00-03	15,16,19-22,32,33	197
1177	08/15/00	N20:19.31 W105:47.36	off Cabo Corrientes, MX	<i>O. orca</i>	Y	L sides, 12 whales	PAO00-08	9,10,14-16,23,33-35	091

Table 9. Whale ID photographs (continued)

Sight No.	Date	Position	Location	Species	Skin Sample	Photo Subject	Roll	Frames	Photog.
"	"		"	"	"	"	PAO00-09	4-11,18	091
"	"		"	"	"	"	SEY00-06	5-9,13,14,16-21,25-30	197
"	"		"	"	"	"	SEY00-07	7	197
"	"		"	"	"	R sides	PAO00-08	28	091
"	"		"	"	"	"	PAO00-09	1,2,12,19	091
"	"		"	"	"	"	SEY00-06	15,22,23,35	197
1331	09/13/00	N16:01.34 W103:34.73	W of Acapulco, MX	<i>O. orca</i>	Y	L sides, 3 whales	EAL10	7-11	200
"	"		"	"	"	"	PAO00-11	24,34-36	092
"	"		"	"	"	R sides	EAL10	2-6	200
"	"		"	"	"	"	PAO00-11	29-33	092
"	"		"	"	"	"	SEY00-09	18	197
1494	10/07/00	N06:58.34 W081:37.51	coastal Panama	<i>O. orca</i>	Y	L sides, 2 whales	ILB00-10	11	196
"	"		"	"	"	R sides	ABD00-10	16	199
"	"		"	"	"	"	ILB00-10	1,2,5,8	196
1600	10/20/00	N15:49.17 W097:31.59	coastal S Mexico	<i>O. orca</i>	Y	L sides, 4 whales	ABD00-13	16,17,21-23,25-32	199
"	"		"	"	"	R sides	ABD00-13	4,9,10,12	199
1702	11/12/00	N14:02.73 W104:23.36	SW of Acapulco, MX	<i>O. orca</i>	Y	R sides, 5 whales	ABD00-18	1,3,5,10,13-18	199
"	"		"	"	"	"	ILB00-16	17,22-25,27	199
1752	11/23/00	N13:58.86 W111:17.57	Mathmeticians Seamounts	<i>O. orca</i>	N	L sides, 4 whales	ABD00-19	7,12-16,18,32-33	199
"	"		"	"	"	R side	ABD00-20	2	199
1804	12/04/00	N21:14.35 W117:31.04	NW of Revillagigedos Is.	<i>O. orca</i>	Y	R sides, 7 whales	ABD00-20	21-23,24-28	196
"	"		"	"	"	"	ILB00-19	7-10,13-15,17-21,25-30	196
363	11/03/00	S06:21.95 W081:11.05	coastal Peru	<i>P. macrocephalus</i>	N	flukes	DHK18	6	091
"	"		"	"	N	flukes	DHK18	18	091
"	"		"	"	N	flukes	PAO00-21	7	200
"	"		"	"	N	flukes	PAO00-21	14	200
"	"		"	"	N	flukes	PAO00-21	20	200
"	"		"	"	N	flukes	PAO00-23	14	200
"	"		"	"	Y	flukes	PAO00-23	30	200
"	"		"	"	Y	flukes	PAO00-24	32	200
"	"		"	"	N	flukes	PO20-25	7	092
"	"		"	"	N	flukes	PO20-25	18	092
"	"		"	"	N	flukes	PO20-25	19	092
"	"		"	"	N	flukes	SEY00-19	1,13	197
"	"		"	"	N	flukes	SEY00-19	2	197
"	"		"	"	N	flukes	SEY00-19	3	197
"	"		"	"	N	flukes	SEY00-19	4	197
"	"		"	"	N	flukes	SEY00-19	6	197
"	"		"	"	N	flukes	SEY00-19	8,16	197
"	"		"	"	N	flukes	SEY00-19	17	197
"	"		"	"	N	flukes	SEY00-19	18	197
"	"		"	"	N	flukes	SEY00-19	19	197

Table 10. Aerial photogrammetry effort, total number of schools, and number of calibration schools, obtained per leg during STAR00 by the helicopter on the *Jordan*<sup>1</sup>.

Leg #	1	2	3	4	5	6	Totals
Days Flown	14	4	4	8	9	13	52
Days Lost	4	16	15	10	11	6	62
% Days Flown	78%	20%	21%	44%	45%	68%	46%
Flight Hours	38.1	14.3	8.9	24.0	24.4	32.8	142.3
Avg. Flight Hrs./Days Flown	2.72	3.58	2.23	3.00	2.69	2.52	2.74
Number of Schools Photographed	32	18	14	22	15	17	118
Number of Schools for Calibration	8	3	5	9	2	6	33
% Calibration	25%	17%	36%	41%	13%	25%	28%

Table 11. Numbers of aerially photographed cetacean schools per leg during STAR00 by the helicopter on the *Jordan*.

Leg #	1	2	3	4	5	6	Totals
<i>Stenella attenuata</i>	6	4	2	6	1	4	23
<i>Stenella longirostris</i>	2						2
Mixed <i>S. attenuata</i> & <i>S. longirostris</i>	1	3	3	1	1	1	10
<i>Stenella coeruleoalba</i>	2	6	5	7	1		21
<i>Delphinus</i> sp.	3			1	3	4	11
Other Small Cetaceans	8	4	2	5	4	6	29
Unid Small Cetaceans	1		1				2
<i>Balaenoptera acurostrata</i>						1	1
<i>Balaenoptera edeni</i>	5			1			6
<i>Balaenoptera musculus</i>	2			1	2		5
<i>Megaptera novaeangliae</i>	1						1
<i>Physeter macrocephalus</i>				1			1
Beaked Whales	1	1	1		2	1	6
Total Schools Photographed	32	18	14	22	15	17	118

<sup>1</sup> Values are corrected from Cruise Report.

Table 12. Identity and sample location of skin biopsy samples of cetaceans obtained during STAR 2000.

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Balaenoptera acutorostrata</i>	1805	DSJ	12/04/2000	21 ° 17 'N	117 ° 27 'W
<i>Balaenoptera acutorostrata</i>	1805	DSJ	12/04/2000	21 ° 17 'N	117 ° 27 'W
<i>Balaenoptera edeni</i>	1047	DSJ	08/01/2000	26 ° 58 'N	114 ° 21 'W
<i>Balaenoptera edeni</i>	1104	DSJ	08/06/2000	24 ° 4 'N	111 ° 43 'W
<i>Balaenoptera edeni</i>	140	MAC	09/08/2000	2 ° 20 'N	129 ° 20 'W
<i>Balaenoptera edeni</i>	1470	DSJ	10/05/2000	9 ° 13 'N	84 ° 28 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1013	DSJ	07/30/2000	29 ° 43 'N	115 ° 49 'W
<i>Balaenoptera musculus</i>	1015	DSJ	07/30/2000	29 ° 39 'N	115 ° 57 'W
<i>Balaenoptera musculus</i>	1018	DSJ	07/30/2000	29 ° 32 'N	115 ° 55 'W
<i>Balaenoptera musculus</i>	1018	DSJ	07/30/2000	29 ° 32 'N	115 ° 55 'W
<i>Balaenoptera musculus</i>	1021	DSJ	07/31/2000	28 ° 28 'N	115 ° 33 'W
<i>Balaenoptera musculus</i>	1543	DSJ	10/12/2000	10 ° 4 'N	91 ° 7 'W
<i>Balaenoptera musculus</i>	1548	DSJ	10/13/2000	10 ° 54 'N	92 ° 3 'W
<i>Balaenoptera musculus</i>	1561	DSJ	10/14/2000	8 ° 45 'N	94 ° 17 'W
<i>Balaenoptera musculus</i>	1561	DSJ	10/14/2000	8 ° 45 'N	94 ° 17 'W
<i>Balaenoptera musculus</i>	1648	DSJ	10/31/2000	9 ° 49 'N	95 ° 35 'W
<i>Balaenoptera musculus</i>	1651	DSJ	11/01/2000	8 ° 52 'N	96 ° 34 'W
<i>Balaenoptera musculus</i>	358	MAC	11/02/2000	6 ° 58 'S	81 ° 8 'W
<i>Balaenoptera musculus</i>	1704	DSJ	11/13/2000	15 ° 16 'N	102 ° 41 'W
<i>Balaenoptera musculus</i>	478	MAC	11/26/2000	7 ° 27 'N	98 ° 4 'W
<i>Berardius bairdii</i>	1051	DSJ	08/01/2000	26 ° 52 'N	114 ° 15 'W
<i>Berardius bairdii</i>	1051	DSJ	08/01/2000	26 ° 52 'N	114 ° 15 'W
<i>Delphinus capensis</i>	1055	DSJ	08/02/2000	25 ° 19 'N	112 ° 53 'W
<i>Delphinus capensis</i>	1055	DSJ	08/02/2000	25 ° 19 'N	112 ° 53 'W
<i>Delphinus capensis</i>	1056	DSJ	08/02/2000	25 ° 8 'N	112 ° 47 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	329	MAC	10/30/2000	9 ° 29 'S	79 ° 3 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W

**Table 12.** Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	332	MAC	10/30/2000	8 ° 59 'S	79 ° 4 'W
<i>Delphinus capensis</i>	335	MAC	10/31/2000	8 ° 24 'S	79 ° 6 'W
<i>Delphinus capensis</i>	335	MAC	10/31/2000	8 ° 24 'S	79 ° 6 'W
<i>Delphinus capensis</i>	335	MAC	10/31/2000	8 ° 24 'S	79 ° 6 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	337	MAC	10/31/2000	8 ° 17 'S	79 ° 19 'W
<i>Delphinus capensis</i>	338	MAC	10/31/2000	8 ° 19 'S	79 ° 43 'W
<i>Delphinus capensis</i>	338	MAC	10/31/2000	8 ° 19 'S	79 ° 43 'W
<i>Delphinus capensis</i>	338	MAC	10/31/2000	8 ° 19 'S	79 ° 43 'W
<i>Delphinus capensis</i>	338	MAC	10/31/2000	8 ° 19 'S	79 ° 43 'W
<i>Delphinus capensis</i>	338	MAC	10/31/2000	8 ° 19 'S	79 ° 43 'W
<i>Delphinus capensis</i>	359	MAC	11/03/2000	6 ° 41 'S	80 ° 41 'W
<i>Delphinus capensis</i>	359	MAC	11/03/2000	6 ° 41 'S	80 ° 41 'W
<i>Delphinus capensis</i>	359	MAC	11/03/2000	6 ° 41 'S	80 ° 41 'W
<i>Delphinus capensis</i>	359	MAC	11/03/2000	6 ° 41 'S	80 ° 41 'W
<i>Delphinus capensis</i>	359	MAC	11/03/2000	6 ° 41 'S	80 ° 41 'W
<i>Delphinus delphis</i>	1003	DSJ	07/29/2000	31 ° 46 'N	116 ° 58 'W
<i>Delphinus delphis</i>	1004	DSJ	07/29/2000	31 ° 41 'N	116 ° 56 'W
<i>Delphinus delphis</i>	1009	DSJ	07/30/2000	29 ° 44 'N	115 ° 53 'W
<i>Delphinus delphis</i>	1125	DSJ	08/09/2000	24 ° 8 'N	109 ° 33 'W
<i>Delphinus delphis</i>	1509	DSJ	10/08/2000	6 ° 18 'N	84 ° 16 'W
<i>Delphinus delphis</i>	1654	DSJ	11/01/2000	8 ° 37 'N	97 ° 57 'W
<i>Delphinus delphis</i>	1654	DSJ	11/01/2000	8 ° 37 'N	97 ° 57 'W
<i>Delphinus delphis</i>	375	MAC	11/05/2000	2 ° 10 'S	81 ° 59 'W
<i>Delphinus delphis</i>	375	MAC	11/05/2000	2 ° 10 'S	81 ° 59 'W
<i>Delphinus delphis</i>	1720	DSJ	11/15/2000	17 ° 45 'N	102 ° 22 'W
<i>Delphinus delphis</i>	1811	DSJ	12/06/2000	26 ° 26 'N	118 ° 51 'W
<i>Delphinus delphis</i>	1811	DSJ	12/06/2000	26 ° 26 'N	118 ° 51 'W
<i>Delphinus delphis</i>	1811	DSJ	12/06/2000	26 ° 26 'N	118 ° 51 'W
<i>Delphinus delphis</i>	1813	DSJ	12/06/2000	26 ° 37 'N	118 ° 52 'W
<i>Delphinus delphis</i>	1813	DSJ	12/06/2000	26 ° 37 'N	118 ° 52 'W
<i>Delphinus delphis</i>	1813	DSJ	12/06/2000	26 ° 37 'N	118 ° 52 'W
<i>Delphinus delphis</i>	1813	DSJ	12/06/2000	26 ° 37 'N	118 ° 52 'W
<i>Delphinus delphis</i>	1814	DSJ	12/06/2000	26 ° 33 'N	118 ° 52 'W
<i>Feresa attenuata</i>	1298	DSJ	09/05/2000	12 ° 54 'N	101 ° 26 'W
<i>Feresa attenuata</i>	1298	DSJ	09/05/2000	12 ° 54 'N	101 ° 26 'W
<i>Feresa attenuata</i>	1298	DSJ	09/05/2000	12 ° 54 'N	101 ° 26 'W
<i>Feresa attenuata</i>	1298	DSJ	09/05/2000	12 ° 54 'N	101 ° 26 'W
<i>Feresa attenuata</i>	1298	DSJ	09/05/2000	12 ° 54 'N	101 ° 26 'W
<i>Globicephala macrorhynchus</i>	1035	DSJ	08/01/2000	26 ° 55 'N	114 ° 47 'W
<i>Globicephala macrorhynchus</i>	1035	DSJ	08/01/2000	26 ° 55 'N	114 ° 47 'W
<i>Globicephala macrorhynchus</i>	1035	DSJ	08/01/2000	26 ° 55 'N	114 ° 47 'W
<i>Globicephala macrorhynchus</i>	1035	DSJ	08/01/2000	26 ° 55 'N	114 ° 47 'W
<i>Globicephala macrorhynchus</i>	1035	DSJ	08/01/2000	26 ° 55 'N	114 ° 47 'W

Table 12. Cetacean biopsy samples (continued)

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Orcinus orca</i>	1494	DSJ	10/07/2000	6 ° 55 'N	81 ° 39 'W
<i>Orcinus orca</i>	1494	DSJ	10/07/2000	6 ° 55 'N	81 ° 39 'W
<i>Orcinus orca</i>	1600	DSJ	10/20/2000	15 ° 49 'N	98 ° 30 'W
<i>Orcinus orca</i>	1600	DSJ	10/20/2000	15 ° 49 'N	98 ° 30 'W
<i>Orcinus orca</i>	1600	DSJ	10/20/2000	15 ° 49 'N	98 ° 30 'W
<i>Orcinus orca</i>	1600	DSJ	10/20/2000	15 ° 49 'N	98 ° 30 'W
<i>Orcinus orca</i>	1702	DSJ	11/12/2000	14 ° 2 'N	104 ° 23 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Orcinus orca</i>	1804	DSJ	12/04/2000	21 ° 14 'N	117 ° 29 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Physeter macrocephalus</i>	363	MAC	11/03/2000	6 ° 22 'S	81 ° 11 'W
<i>Pseudorca crassidens</i>	1501	DSJ	10/07/2000	6 ° 27 'N	81 ° 44 'W
<i>Pseudorca crassidens</i>	1501	DSJ	10/07/2000	6 ° 27 'N	81 ° 44 'W
<i>Pseudorca crassidens</i>	1501	DSJ	10/07/2000	6 ° 27 'N	81 ° 44 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Pseudorca crassidens</i>	1712	DSJ	11/14/2000	16 ° 31 'N	100 ° 41 'W
<i>Stenella attenuata</i>	1115	DSJ	08/08/2000	21 ° 38 'N	109 ° 12 'W
<i>Stenella attenuata</i>	1115	DSJ	08/08/2000	21 ° 38 'N	109 ° 12 'W
<i>Stenella attenuata</i>	1115	DSJ	08/08/2000	21 ° 38 'N	109 ° 12 'W
<i>Stenella attenuata</i>	1130	DSJ	08/09/2000	24 ° 46 'N	109 ° 48 'W
<i>Stenella attenuata</i>	1130	DSJ	08/09/2000	24 ° 46 'N	109 ° 48 'W
<i>Stenella attenuata</i>	1130	DSJ	08/09/2000	24 ° 46 'N	109 ° 48 'W
<i>Stenella attenuata</i>	1130	DSJ	08/09/2000	24 ° 46 'N	109 ° 48 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1149	DSJ	08/11/2000	22 ° 25 'N	107 ° 25 'W
<i>Stenella attenuata</i>	1150	DSJ	08/11/2000	22 ° 22 'N	107 ° 12 'W

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Stenella attenuata</i>	1158	DSJ	08/12/2000	21 ° 10 'N	106 ° 20 'W
<i>Stenella attenuata</i>	1158	DSJ	08/12/2000	21 ° 10 'N	106 ° 20 'W
<i>Stenella attenuata</i>	1158	DSJ	08/12/2000	21 ° 10 'N	106 ° 20 'W
<i>Stenella attenuata</i>	1158	DSJ	08/12/2000	21 ° 10 'N	106 ° 20 'W
<i>Stenella attenuata</i>	1169	DSJ	08/13/2000	20 ° 33 'N	107 ° 40 'W
<i>Stenella attenuata</i>	1176	DSJ	08/13/2000	20 ° 5 'N	108 ° 53 'W
<i>Stenella attenuata</i>	1176	DSJ	08/13/2000	20 ° 5 'N	108 ° 53 'W
<i>Stenella attenuata</i>	1176	DSJ	08/13/2000	20 ° 5 'N	108 ° 53 'W
<i>Stenella attenuata</i>	1176	DSJ	08/13/2000	20 ° 5 'N	108 ° 53 'W
<i>Stenella attenuata</i>	1176	DSJ	08/13/2000	20 ° 5 'N	108 ° 53 'W
<i>Stenella attenuata</i>	1195	DSJ	08/19/2000	18 ° 31 'N	105 ° 0 'W
<i>Stenella attenuata</i>	1198	DSJ	08/20/2000	17 ° 27 'N	106 ° 4 'W
<i>Stenella attenuata</i>	1198	DSJ	08/20/2000	17 ° 27 'N	106 ° 4 'W
<i>Stenella attenuata</i>	1198	DSJ	08/20/2000	17 ° 27 'N	106 ° 4 'W
<i>Stenella attenuata</i>	1199	DSJ	08/20/2000	17 ° 25 'N	106 ° 8 'W
<i>Stenella attenuata</i>	1208	DSJ	08/20/2000	17 ° 13 'N	106 ° 54 'W
<i>Stenella attenuata</i>	1208	DSJ	08/20/2000	17 ° 13 'N	106 ° 54 'W
<i>Stenella attenuata</i>	1208	DSJ	08/20/2000	17 ° 13 'N	106 ° 54 'W
<i>Stenella attenuata</i>	1260	DSJ	08/27/2000	11 ° 25 'N	115 ° 40 'W
<i>Stenella attenuata</i>	1260	DSJ	08/27/2000	11 ° 25 'N	115 ° 40 'W
<i>Stenella attenuata</i>	1262	DSJ	08/27/2000	11 ° 21 'N	115 ° 46 'W
<i>Stenella attenuata</i>	1300	DSJ	09/05/2000	13 ° 1 'N	101 ° 17 'W
<i>Stenella attenuata</i>	1300	DSJ	09/05/2000	13 ° 1 'N	101 ° 17 'W
<i>Stenella attenuata</i>	1326	DSJ	09/13/2000	16 ° 42 'N	102 ° 24 'W
<i>Stenella attenuata</i>	1326	DSJ	09/13/2000	16 ° 42 'N	102 ° 24 'W
<i>Stenella attenuata</i>	1330	DSJ	09/13/2000	16 ° 0 'N	103 ° 34 'W
<i>Stenella attenuata</i>	1330	DSJ	09/13/2000	16 ° 0 'N	103 ° 34 'W
<i>Stenella attenuata</i>	1330	DSJ	09/13/2000	16 ° 0 'N	103 ° 34 'W
<i>Stenella attenuata</i>	1395	DSJ	09/24/2000	11 ° 37 'N	100 ° 3 'W
<i>Stenella attenuata</i>	1399	DSJ	09/25/2000	12 ° 18 'N	97 ° 58 'W
<i>Stenella attenuata</i>	1402	DSJ	09/25/2000	12 ° 25 'N	97 ° 43 'W
<i>Stenella attenuata</i>	1402	DSJ	09/25/2000	12 ° 25 'N	97 ° 43 'W
<i>Stenella attenuata</i>	1402	DSJ	09/25/2000	12 ° 25 'N	97 ° 43 'W
<i>Stenella attenuata</i>	1402	DSJ	09/25/2000	12 ° 25 'N	97 ° 43 'W
<i>Stenella attenuata</i>	1402	DSJ	09/25/2000	12 ° 25 'N	97 ° 43 'W
<i>Stenella attenuata</i>	1406	DSJ	09/25/2000	12 ° 30 'N	97 ° 14 'W
<i>Stenella attenuata</i>	1406	DSJ	09/25/2000	12 ° 30 'N	97 ° 14 'W
<i>Stenella attenuata</i>	1409	DSJ	09/25/2000	12 ° 31 'N	97 ° 5 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1544	DSJ	10/13/2000	11 ° 0 'N	91 ° 52 'W
<i>Stenella attenuata</i>	1550	DSJ	10/13/2000	10 ° 43 'N	92 ° 12 'W
<i>Stenella attenuata</i>	1550	DSJ	10/13/2000	10 ° 43 'N	92 ° 12 'W
<i>Stenella attenuata</i>	1550	DSJ	10/13/2000	10 ° 43 'N	92 ° 12 'W
<i>Stenella attenuata</i>	1550	DSJ	10/13/2000	10 ° 43 'N	92 ° 12 'W
<i>Stenella attenuata</i>	1550	DSJ	10/13/2000	10 ° 43 'N	92 ° 12 'W
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Stenella attenuata</i>	1577	DSJ	10/15/2000	8 ° 41 'N	96 ° 53 'W
<i>Stenella attenuata</i>	1584	DSJ	10/16/2000	8 ° 44 'N	100 ° 10 'W
<i>Stenella attenuata</i>	1584	DSJ	10/16/2000	8 ° 44 'N	100 ° 10 'W
<i>Stenella attenuata</i>	1584	DSJ	10/16/2000	8 ° 44 'N	100 ° 10 'W
<i>Stenella attenuata</i>	1585	DSJ	10/16/2000	8 ° 40 'N	100 ° 24 'W
<i>Stenella attenuata</i>	1589	DSJ	10/18/2000	11 ° 22 'N	97 ° 42 'W
<i>Stenella attenuata</i>	1589	DSJ	10/18/2000	11 ° 22 'N	97 ° 42 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella attenuata</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella attenuata</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella attenuata</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella attenuata</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella attenuata</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1734	DSJ	11/20/2000	18 ° 16 'N	104 ° 37 'W
<i>Stenella attenuata</i>	1742	DSJ	11/22/2000	15 ° 22 'N	107 ° 56 'W
<i>Stenella attenuata</i>	1801	DSJ	12/03/2000	18 ° 47 'N	116 ° 39 'W
<i>Stenella attenuata</i>	1807	DSJ	12/05/2000	23 ° 28 'N	118 ° 28 'W
<i>Stenella attenuata</i>	1807	DSJ	12/05/2000	23 ° 28 'N	118 ° 28 'W
<i>Stenella attenuata graffmani</i>	1318	DSJ	09/12/2000	16 ° 55 'N	100 ° 11 'W
<i>Stenella attenuata graffmani</i>	1318	DSJ	09/12/2000	16 ° 55 'N	100 ° 11 'W
<i>Stenella attenuata graffmani</i>	1318	DSJ	09/12/2000	16 ° 55 'N	100 ° 11 'W
<i>Stenella attenuata graffmani</i>	1318	DSJ	09/12/2000	16 ° 55 'N	100 ° 11 'W
<i>Stenella attenuata graffmani</i>	1437	DSJ	09/28/2000	13 ° 7 'N	89 ° 31 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1441	DSJ	09/28/2000	13 ° 0 'N	88 ° 56 'W
<i>Stenella attenuata graffmani</i>	1442	DSJ	09/28/2000	12 ° 59 'N	88 ° 59 'W
<i>Stenella attenuata graffmani</i>	1442	DSJ	09/28/2000	12 ° 59 'N	88 ° 59 'W
<i>Stenella attenuata graffmani</i>	1442	DSJ	09/28/2000	12 ° 59 'N	88 ° 59 'W
<i>Stenella attenuata graffmani</i>	1442	DSJ	09/28/2000	12 ° 59 'N	88 ° 59 'W
<i>Stenella attenuata graffmani</i>	1442	DSJ	09/28/2000	12 ° 59 'N	88 ° 59 'W
<i>Stenella attenuata graffmani</i>	1453	DSJ	09/30/2000	10 ° 5 'N	85 ° 56 'W
<i>Stenella attenuata graffmani</i>	1453	DSJ	09/30/2000	10 ° 5 'N	85 ° 56 'W
<i>Stenella attenuata graffmani</i>	1453	DSJ	09/30/2000	10 ° 5 'N	85 ° 56 'W

Table 12. Cetacean biopsy samples (continued)

Table 12. Cetacean biopsy samples (continued)

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1311	DSJ	09/07/2000	16 ° 21 'N	98 ° 56 'W
<i>Stenella attenuata</i> subsp.	1312	DSJ	09/07/2000	16 ° 25 'N	99 ° 4 'W
<i>Stenella attenuata</i> subsp.	1312	DSJ	09/07/2000	16 ° 25 'N	99 ° 4 'W
<i>Stenella attenuata</i> subsp.	1317	DSJ	09/12/2000	16 ° 52 'N	99 ° 57 'W
<i>Stenella attenuata</i> subsp.	1317	DSJ	09/12/2000	16 ° 52 'N	99 ° 57 'W
<i>Stenella attenuata</i> subsp.	1319	DSJ	09/12/2000	19 ° 55 'N	100 ° 15 'W
<i>Stenella attenuata</i> subsp.	1319	DSJ	09/12/2000	19 ° 55 'N	100 ° 15 'W
<i>Stenella attenuata</i> subsp.	1323	DSJ	09/12/2000	16 ° 58 'N	100 ° 39 'W
<i>Stenella attenuata</i> subsp.	1323	DSJ	09/12/2000	16 ° 58 'N	100 ° 39 'W
<i>Stenella attenuata</i> subsp.	1323	DSJ	09/12/2000	16 ° 58 'N	100 ° 39 'W
<i>Stenella attenuata</i> subsp.	1323	DSJ	09/12/2000	16 ° 58 'N	100 ° 39 'W
<i>Stenella attenuata</i> subsp.	1596	DSJ	10/20/2000	15 ° 49 'N	97 ° 44 'W
<i>Stenella attenuata</i> subsp.	1596	DSJ	10/20/2000	15 ° 49 'N	97 ° 44 'W
<i>Stenella attenuata</i> subsp.	1597	DSJ	10/20/2000	15 ° 49 'N	97 ° 43 'W
<i>Stenella attenuata</i> subsp.	1597	DSJ	10/20/2000	15 ° 49 'N	97 ° 43 'W
<i>Stenella attenuata</i> subsp.	1597	DSJ	10/20/2000	15 ° 49 'N	97 ° 43 'W
<i>Stenella attenuata</i> subsp.	1597	DSJ	10/20/2000	15 ° 49 'N	97 ° 43 'W
<i>Stenella attenuata</i> subsp.	1597	DSJ	10/20/2000	15 ° 49 'N	97 ° 43 'W
<i>Stenella attenuata</i> subsp.	1603	DSJ	10/20/2000	15 ° 46 'N	97 ° 24 'W
<i>Stenella attenuata</i> subsp.	1603	DSJ	10/20/2000	15 ° 46 'N	97 ° 24 'W
<i>Stenella attenuata</i> subsp.	1603	DSJ	10/20/2000	15 ° 46 'N	97 ° 24 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	394	MAC	11/07/2000	0 ° 19 'S	80 ° 45 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	414	MAC	11/12/2000	6 ° 32 'N	77 ° 37 'W
<i>Stenella attenuata</i> subsp.	1728	DSJ	11/15/2000	18 ° 3 'N	103 ° 24 'W
<i>Stenella coeruleoalba</i>	1117	DSJ	08/08/2000	21 ° 44 'N	109 ° 7 'W
<i>Stenella coeruleoalba</i>	1201	DSJ	08/20/2000	17 ° 20 'N	106 ° 25 'W
<i>Stenella coeruleoalba</i>	1565	DSJ	10/15/2000	8 ° 38 'N	96 ° 3 'W
<i>Stenella coeruleoalba</i>	1569	DSJ	10/15/2000	8 ° 42 'N	96 ° 17 'W
<i>Stenella coeruleoalba</i>	1569	DSJ	10/15/2000	8 ° 42 'N	96 ° 17 'W
<i>Stenella coeruleoalba</i>	1653	DSJ	11/01/2000	8 ° 53 'N	96 ° 37 'W
<i>Stenella coeruleoalba</i>	1771	DSJ	11/28/2000	16 ° 53 'N	117 ° 23 'W
<i>Stenella coeruleoalba</i>	1795	DSJ	12/03/2000	19 ° 3 'N	116 ° 11 'W
<i>Stenella longirostris orientalis</i>	1144	DSJ	08/11/2000	23 ° 17 'N	107 ° 12 'W
<i>Stenella longirostris orientalis</i>	1144	DSJ	08/11/2000	23 ° 17 'N	107 ° 12 'W
<i>Stenella longirostris orientalis</i>	1144	DSJ	08/11/2000	23 ° 17 'N	107 ° 12 'W
<i>Stenella longirostris orientalis</i>	1144	DSJ	08/11/2000	23 ° 17 'N	107 ° 12 'W

Table 12. Cetacean biopsy samples (continued)

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Stenella longirostris orientalis</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella longirostris orientalis</i>	1593	DSJ	10/19/2000	13 ° 36 'N	97 ° 15 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1594	DSJ	10/19/2000	14 ° 21 'N	97 ° 27 'W
<i>Stenella longirostris orientalis</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella longirostris orientalis</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella longirostris orientalis</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella longirostris orientalis</i>	1635	DSJ	10/30/2000	12 ° 1 'N	93 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Stenella longirostris orientalis</i>	1707	DSJ	11/13/2000	15 ° 44 'N	102 ° 2 'W
<i>Steno bredanensis</i>	1161	DSJ	08/12/2000	20 ° 57 'N	106 ° 7 'W
<i>Steno bredanensis</i>	1161	DSJ	08/12/2000	20 ° 57 'N	106 ° 7 'W
<i>Steno bredanensis</i>	1249	DSJ	08/23/2000	14 ° 50 'N	114 ° 51 'W
<i>Steno bredanensis</i>	1249	DSJ	08/23/2000	14 ° 50 'N	114 ° 51 'W
<i>Steno bredanensis</i>	1482	DSJ	10/06/2000	7 ° 51 'N	82 ° 30 'W
<i>Steno bredanensis</i>	1665	DSJ	11/02/2000	6 ° 31 'N	99 ° 26 'W
<i>Steno bredanensis</i>	1665	DSJ	11/02/2000	6 ° 31 'N	99 ° 26 'W
<i>Steno bredanensis</i>	1715	DSJ	11/14/2000	16 ° 47 'N	100 ° 52 'W
<i>Steno bredanensis</i>	1719	DSJ	11/14/2000	17 ° 10 'N	101 ° 13 'W
<i>Steno bredanensis</i>	1719	DSJ	11/14/2000	17 ° 10 'N	101 ° 13 'W
<i>Steno bredanensis</i>	1719	DSJ	11/14/2000	17 ° 10 'N	101 ° 13 'W
<i>Tursiops truncatus</i>	1057	DSJ	08/02/2000	25 ° 7 'N	112 ° 45 'W
<i>Tursiops truncatus</i>	1062	DSJ	08/02/2000	24 ° 50 'N	112 ° 34 'W
<i>Tursiops truncatus</i>	1062	DSJ	08/02/2000	24 ° 50 'N	112 ° 34 'W
<i>Tursiops truncatus</i>	1065	DSJ	08/02/2000	24 ° 44 'N	112 ° 31 'W
<i>Tursiops truncatus</i>	1065	DSJ	08/02/2000	24 ° 44 'N	112 ° 31 'W
<i>Tursiops truncatus</i>	1066	DSJ	08/02/2000	24 ° 42 'N	112 ° 26 'W
<i>Tursiops truncatus</i>	1066	DSJ	08/02/2000	24 ° 42 'N	112 ° 26 'W
<i>Tursiops truncatus</i>	1066	DSJ	08/02/2000	24 ° 42 'N	112 ° 26 'W
<i>Tursiops truncatus</i>	1092	DSJ	08/06/2000	23 ° 58 'N	112 ° 11 'W
<i>Tursiops truncatus</i>	1092	DSJ	08/06/2000	23 ° 58 'N	112 ° 11 'W
<i>Tursiops truncatus</i>	1100	DSJ	08/06/2000	24 ° 6 'N	111 ° 52 'W
<i>Tursiops truncatus</i>	1100	DSJ	08/06/2000	24 ° 6 'N	111 ° 52 'W
<i>Tursiops truncatus</i>	1102	DSJ	08/06/2000	24 ° 5 'N	111 ° 50 'W
<i>Tursiops truncatus</i>	1102	DSJ	08/06/2000	24 ° 5 'N	111 ° 50 'W
<i>Tursiops truncatus</i>	1133	DSJ	08/10/2000	24 ° 31 'N	108 ° 9 'W
<i>Tursiops truncatus</i>	1133	DSJ	08/10/2000	24 ° 31 'N	108 ° 9 'W
<i>Tursiops truncatus</i>	1133	DSJ	08/10/2000	24 ° 31 'N	108 ° 9 'W
<i>Tursiops truncatus</i>	1133	DSJ	08/10/2000	24 ° 31 'N	108 ° 9 'W
<i>Tursiops truncatus</i>	1133	DSJ	08/10/2000	24 ° 31 'N	108 ° 9 'W
<i>Tursiops truncatus</i>	1146	DSJ	08/11/2000	23 ° 4 'N	107 ° 12 'W
<i>Tursiops truncatus</i>	1146	DSJ	08/11/2000	23 ° 4 'N	107 ° 12 'W
<i>Tursiops truncatus</i>	1146	DSJ	08/11/2000	23 ° 4 'N	107 ° 12 'W
<i>Tursiops truncatus</i>	1146	DSJ	08/11/2000	23 ° 4 'N	107 ° 12 'W

Table 12. Cetacean biopsy samples (continued)

Table 12. Cetacean biopsy samples (continued)

Species/Stock	Sighting Number	Ship	Date (mm/dd/year)	Position	
<i>Tursiops truncatus</i>	1541	DSJ	10/12/2000	9 ° 44 'N	91 ° 0 'W
<i>Tursiops truncatus</i>	1541	DSJ	10/12/2000	9 ° 44 'N	91 ° 0 'W
<i>Tursiops truncatus</i>	1547	DSJ	10/13/2000	10 ° 54 'N	92 ° 4 'W
<i>Tursiops truncatus</i>	1547	DSJ	10/13/2000	10 ° 54 'N	92 ° 4 'W
<i>Tursiops truncatus</i>	1547	DSJ	10/13/2000	10 ° 54 'N	92 ° 4 'W
<i>Tursiops truncatus</i>	1549	DSJ	10/13/2000	10 ° 47 'N	92 ° 7 'W
<i>Tursiops truncatus</i>	1584	DSJ	10/16/2000	8 ° 44 'N	100 ° 10 'W
<i>Tursiops truncatus</i>	1604	DSJ	10/20/2000	15 ° 42 'N	97 ° 5 'W
<i>Tursiops truncatus</i>	1604	DSJ	10/20/2000	15 ° 42 'N	97 ° 5 'W
<i>Tursiops truncatus</i>	1612	DSJ	10/22/2000	14 ° 24 'N	92 ° 19 'W
<i>Tursiops truncatus</i>	1625	DSJ	10/22/2000	13 ° 47 'N	91 ° 45 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	1637	DSJ	10/30/2000	11 ° 47 'N	93 ° 13 'W
<i>Tursiops truncatus</i>	352	MAC	11/02/2000	7 ° 6 'S	82 ° 26 'W
<i>Tursiops truncatus</i>	353	MAC	11/02/2000	7 ° 7 'S	82 ° 27 'W
<i>Tursiops truncatus</i>	386	MAC	11/07/2000	0 ° 54 'S	81 ° 34 'W
<i>Tursiops truncatus</i>	386	MAC	11/07/2000	0 ° 54 'S	81 ° 34 'W
<i>Tursiops truncatus</i>	391	MAC	11/07/2000	0 ° 58 'S	81 ° 12 'W
<i>Tursiops truncatus</i>	1697	DSJ	11/10/2000	10 ° 18 'N	109 ° 15 'W
<i>Tursiops truncatus</i>	1697	DSJ	11/10/2000	10 ° 18 'N	109 ° 15 'W
<i>Tursiops truncatus</i>	1697	DSJ	11/10/2000	10 ° 18 'N	109 ° 15 'W
<i>Tursiops truncatus</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Tursiops truncatus</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Tursiops truncatus</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Tursiops truncatus</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Tursiops truncatus</i>	1711	DSJ	11/14/2000	16 ° 31 'N	100 ° 38 'W
<i>Tursiops truncatus</i>	468	MAC	11/25/2000	5 ° 58 'N	94 ° 49 'W
<i>Tursiops truncatus</i>	1775	DSJ	11/28/2000	17 ° 1 'N	116 ° 57 'W
<i>Tursiops truncatus</i>	1775	DSJ	11/28/2000	17 ° 1 'N	116 ° 57 'W
<i>Tursiops truncatus</i>	1775	DSJ	11/28/2000	17 ° 1 'N	116 ° 57 'W
<i>Tursiops truncatus</i>	1775	DSJ	11/28/2000	17 ° 1 'N	116 ° 57 'W
<i>Tursiops truncatus</i>	1775	DSJ	11/28/2000	17 ° 1 'N	116 ° 57 'W
<i>Tursiops truncatus</i>	1786	DSJ	12/01/2000	19 ° 25 'N	110 ° 46 'W
<i>Tursiops truncatus</i>	1786	DSJ	12/01/2000	19 ° 25 'N	110 ° 46 'W
<i>Tursiops truncatus</i>	1786	DSJ	12/01/2000	19 ° 25 'N	110 ° 46 'W
<i>Tursiops truncatus</i>	1786	DSJ	12/01/2000	19 ° 25 'N	110 ° 46 'W
<i>Tursiops truncatus</i>	1791	DSJ	12/02/2000	20 ° 36 'N	112 ° 32 'W
<i>Tursiops truncatus</i>	1797	DSJ	12/03/2000	19 ° 2 'N	111 ° 13 'W
<i>Tursiops truncatus</i>	1797	DSJ	12/03/2000	19 ° 2 'N	111 ° 13 'W
<i>Tursiops truncatus</i>	1797	DSJ	12/03/2000	19 ° 2 'N	111 ° 13 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W
<i>Tursiops truncatus</i>	1818	DSJ	12/06/2000	27 ° 14 'N	118 ° 38 'W

Table 13. Summary of skin biopsy samples of cetaceans obtained during STAR00, listed by number of samples.

Species/Stock	Totals
<i>Tursiops truncatus</i>	126
<i>Stenella attenuata</i> (NE stock)	107
<i>Stenella attenuata graffmani</i>	85
<i>Stenella attenuata</i> (unid. stock)	82
<i>Stenella longirostris orientalis</i>	79
<i>Delphinus capensis</i>	48
<i>Globicephala macrorhynchus</i>	43
<i>Balaenoptera musculus</i>	19
<i>Orcinus orca</i>	18
<i>Pseudorca crassidens</i>	18
<i>Delphinus delphis</i>	17
<i>Steno bredanensis</i>	11
<i>Stenella coeruleoalba</i>	8
<i>Megaptera novaeangliae</i>	7
<i>Physeter macrocephalus</i>	7
<i>Feresa attenuata</i>	6
<i>Balaenoptera edeni</i>	4
<i>Lagenorhynchus obliquidens</i>	4
<i>Balaenoptera acutorostrata</i>	2
<i>Berardius bairdii</i>	2
Total	693

Table 14. Number of cetacean schools for which behavioral observations were recorded during STAR99.

Sighting-category	Totals
<i>Stenella coeruleoalba</i>	162
<i>Tursiops truncatus</i>	153
<i>Stenella attenuata</i> (offshore)	149
unid. dolphin	136
<i>Delphinus delphis</i>	86
<i>Stenella longirostris orientalis</i>	71
<i>Grampus griseus</i>	49
<i>Stenella attenuata</i> (unid. subsp.)	43
<i>Stenella attenuata graffmani</i>	43
<i>Globicephala macrorhynchus</i>	40
<i>Steno bredanensis</i>	33
<i>Stenella longirostris</i> (whitebelly)	23
<i>Balaenoptera edeni</i>	19
<i>Orcinus orca</i>	18
ziphiid whale	17
<i>Kogia sima</i>	15
<i>Ziphius cavirostris</i>	15
<i>Balaenoptera musculus</i>	13
<i>Delphinus capensis</i>	11
<i>Globicephala</i> sp.	10
<i>Pseudorca crassidens</i>	9
<i>Stenella longirostris</i> (southwestern)	9
<i>Stenella longirostris</i> (unid. subsp.)	9
<i>Megaptera novaeangliae</i>	8
<i>Balaenoptera borealis/edeni</i>	7
unid. small whale	7
<i>Balaenoptera</i> sp.	6
<i>Lagenorhynchus obliquidens</i>	5
unid. large whale	5
<i>Delphinus</i> sp.	4
<i>Lagenorhynchus obscurus</i>	4
<i>Mesoplodon</i> sp.	4
<i>Physeter macrocephalus</i>	4
<i>Feresa attenuata</i>	3
<i>Mesoplodon</i> sp. A	3
unid. whale	3
<i>Balaenoptera acutorostrata</i>	1
<i>Kogia</i> spp.	1
<i>Indopacetus pacificus</i>	1
<i>Mesoplodon densirostris</i>	1
Total	1200

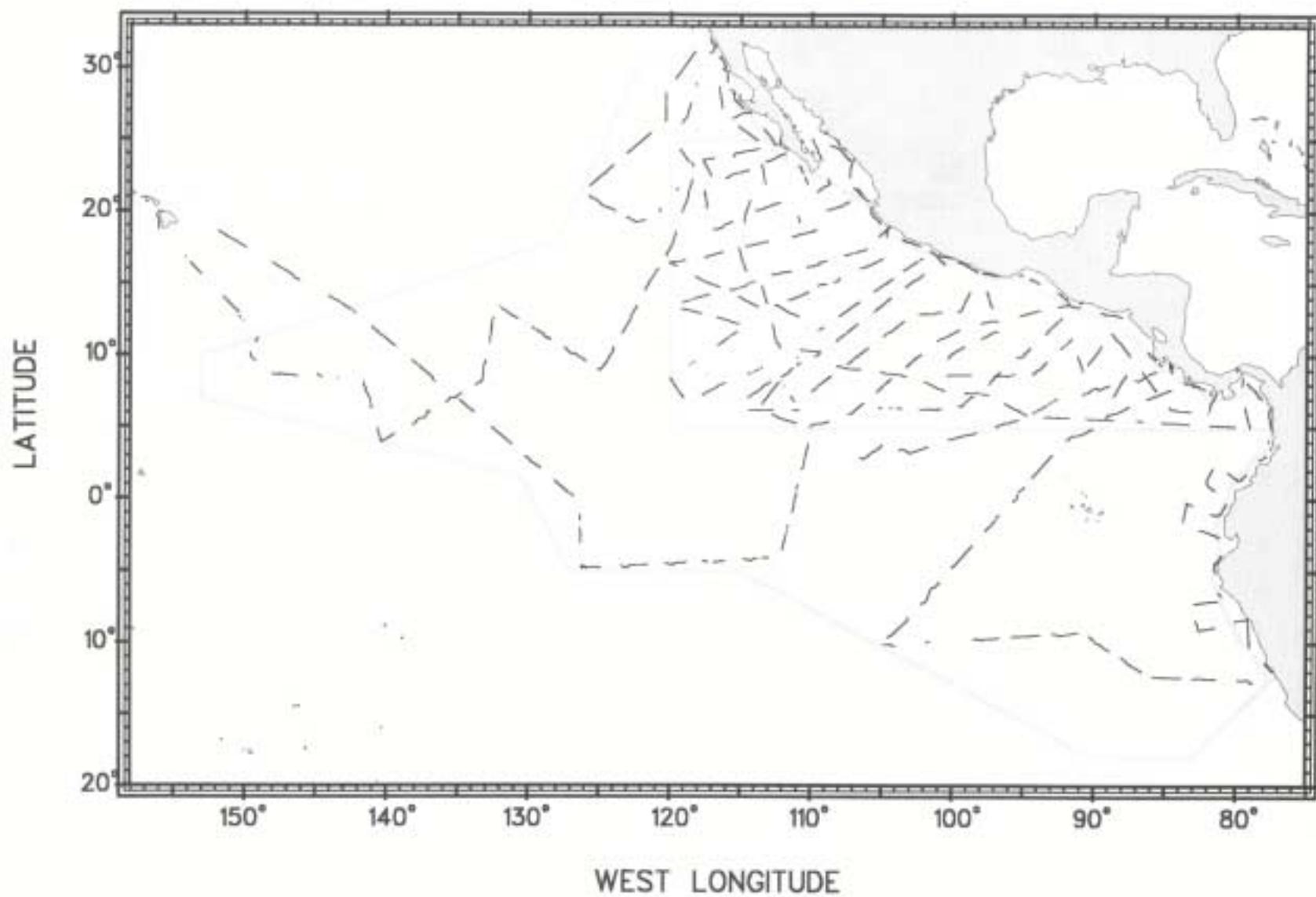


Figure 1. STAR00 survey tracklines and sampling strata boundaries, both ships combined. The solid portions of the tracklines represent the time spent actively searching for marine mammals.

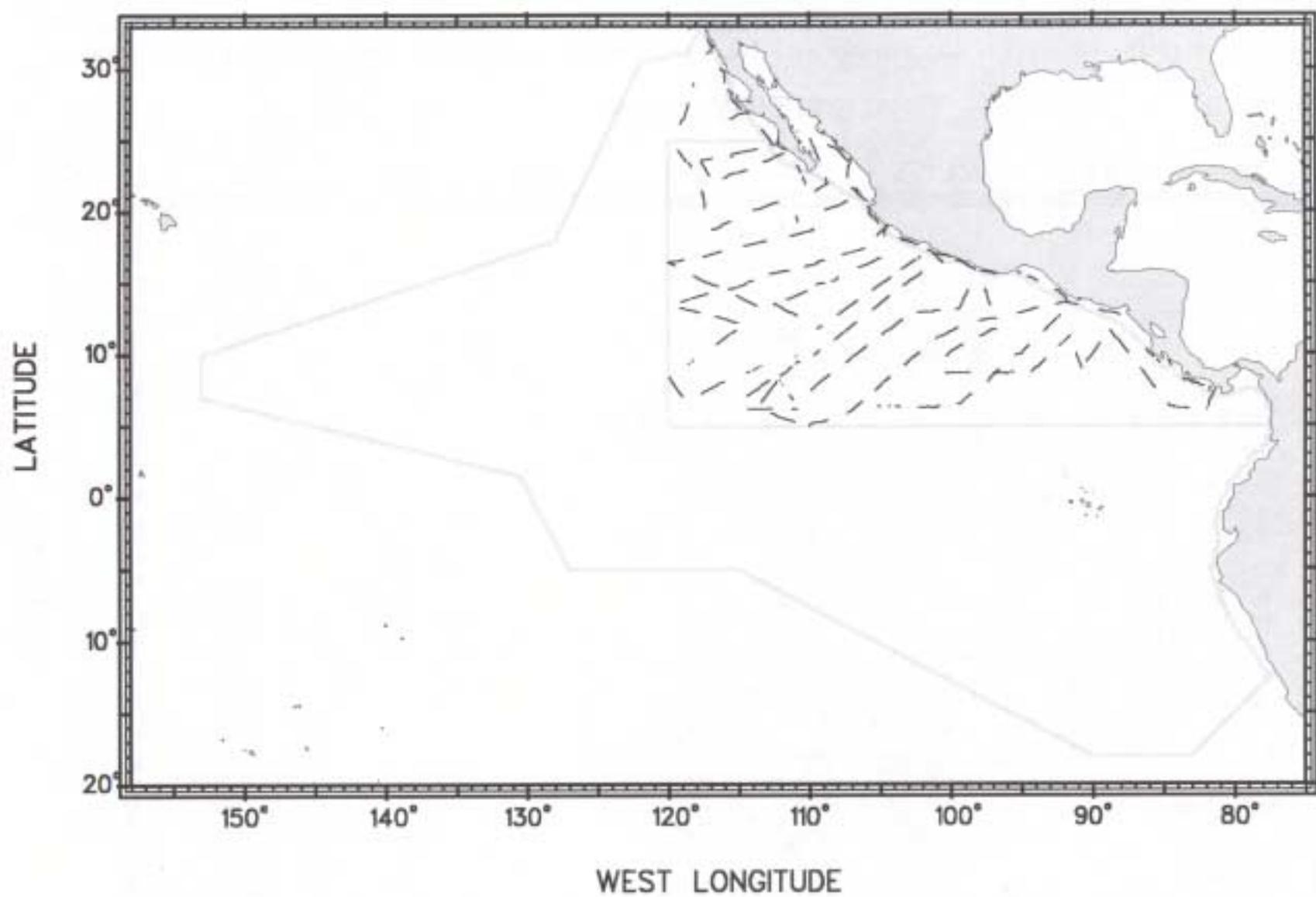


Figure 2. STAR00 tracklines for the *David Starr Jordan*.

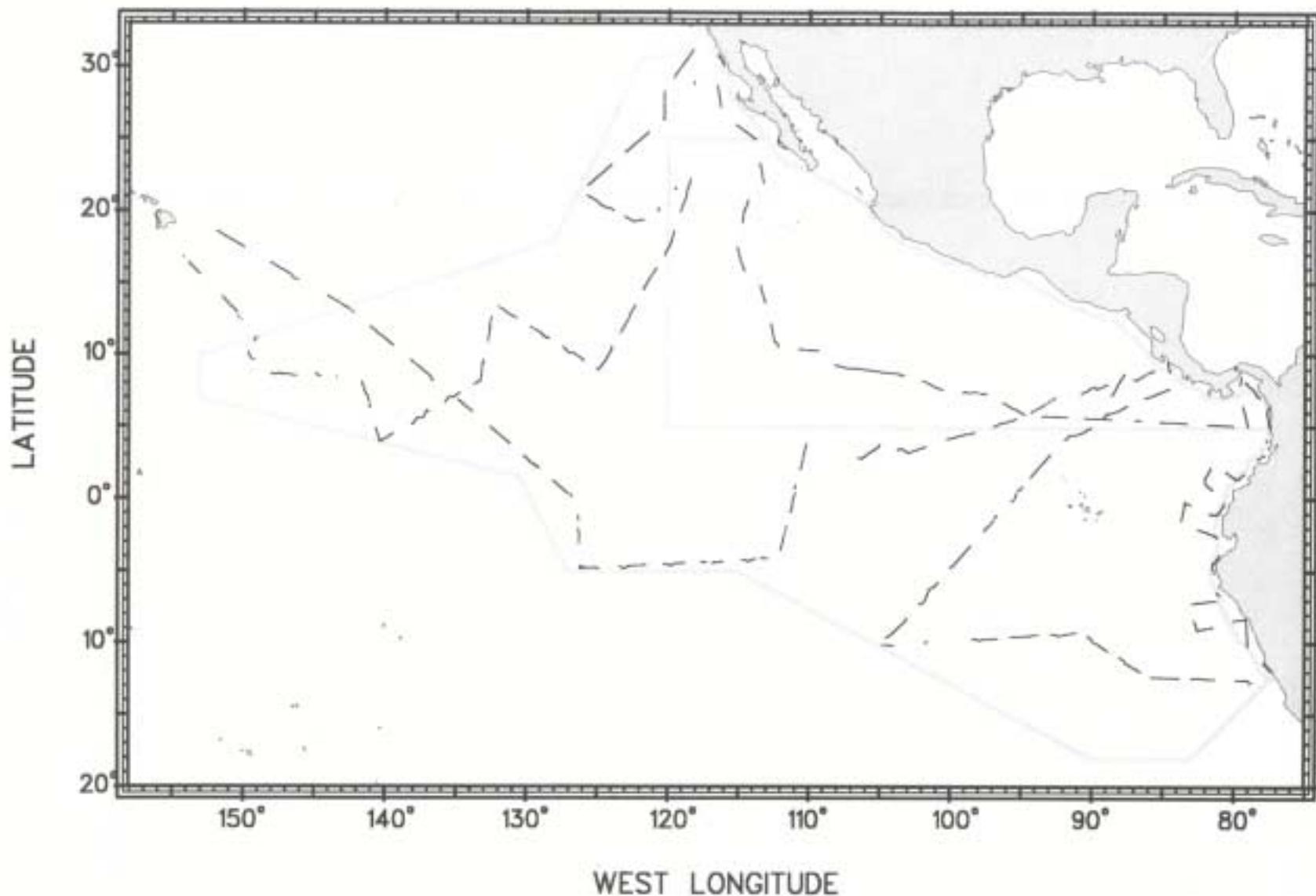


Figure 3. STAR00 tracklines for the *McArthur*.

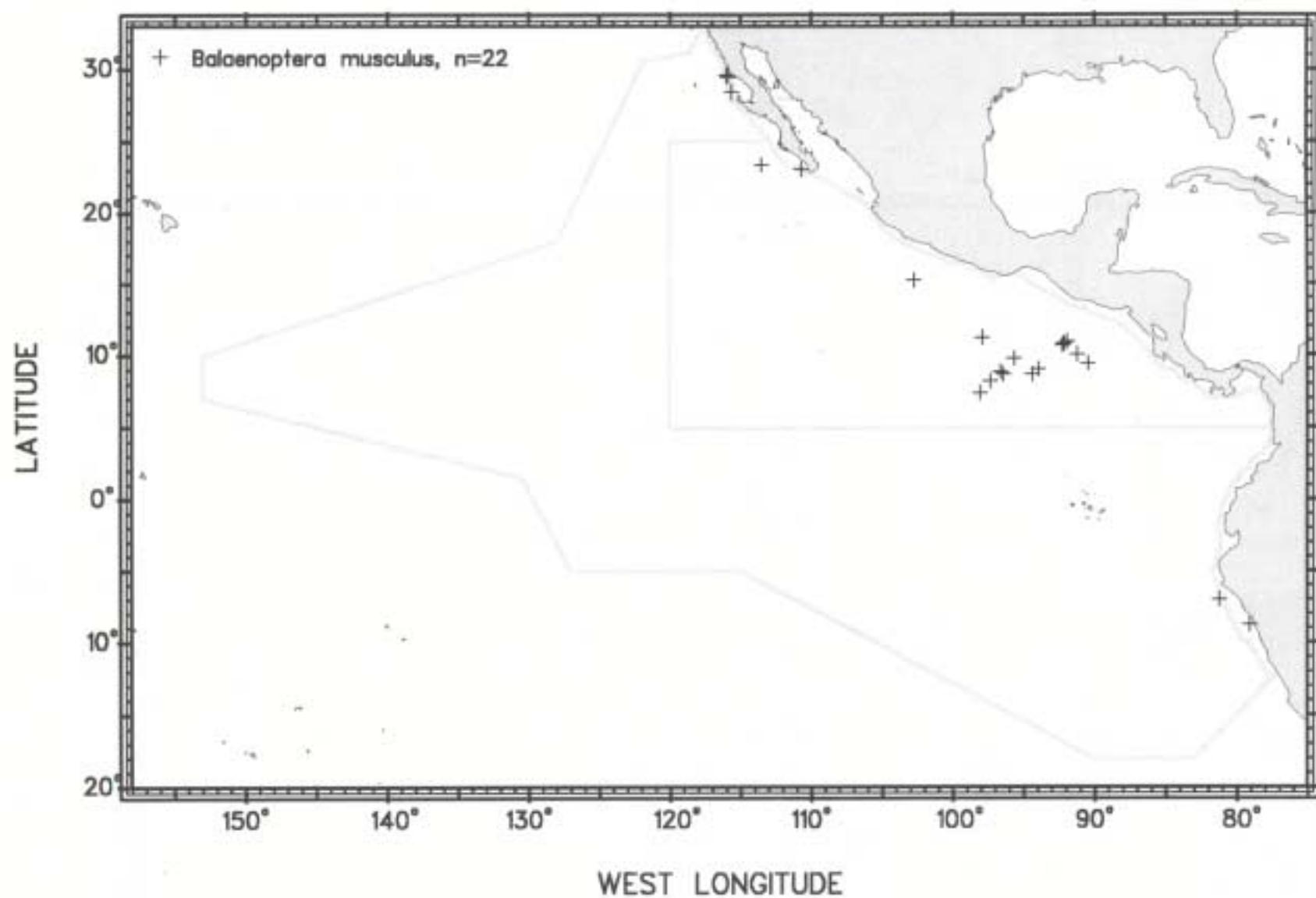


Figure 4. Blue whale sightings during STAR00.

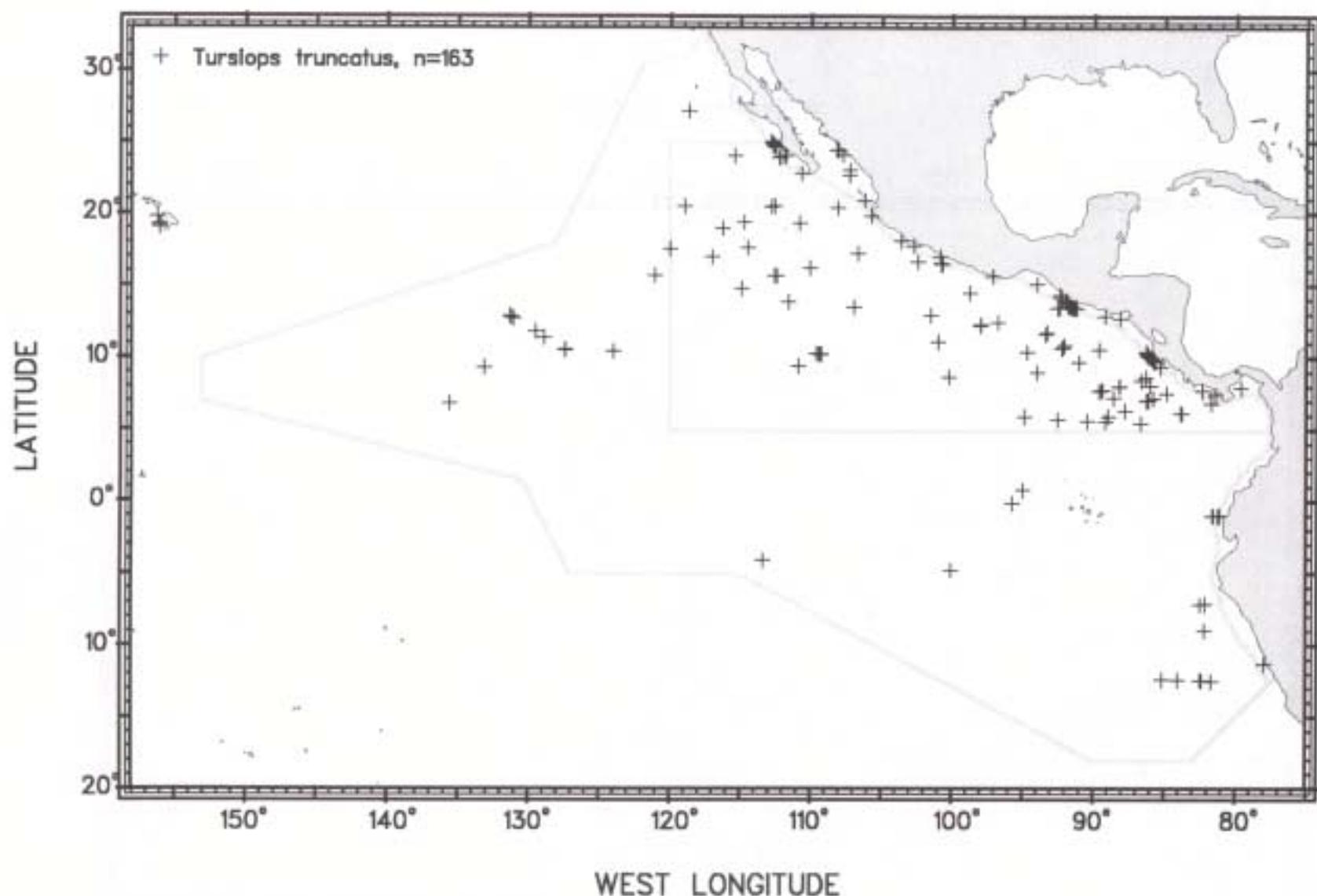


Figure 5. Bottlenose dolphin sightings during STAR00.

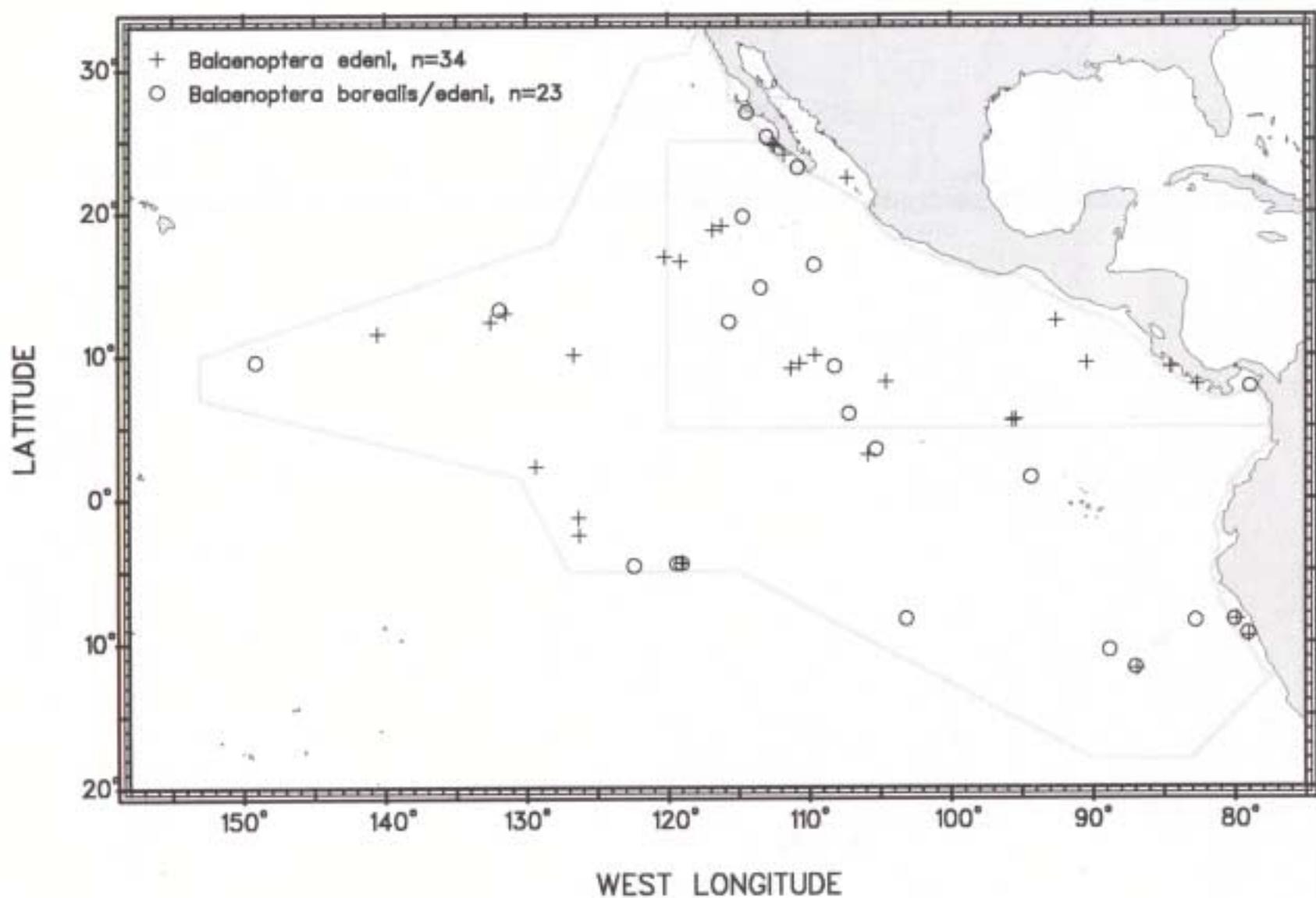


Figure 6. Bryde's and sei whale sightings during STAR00.

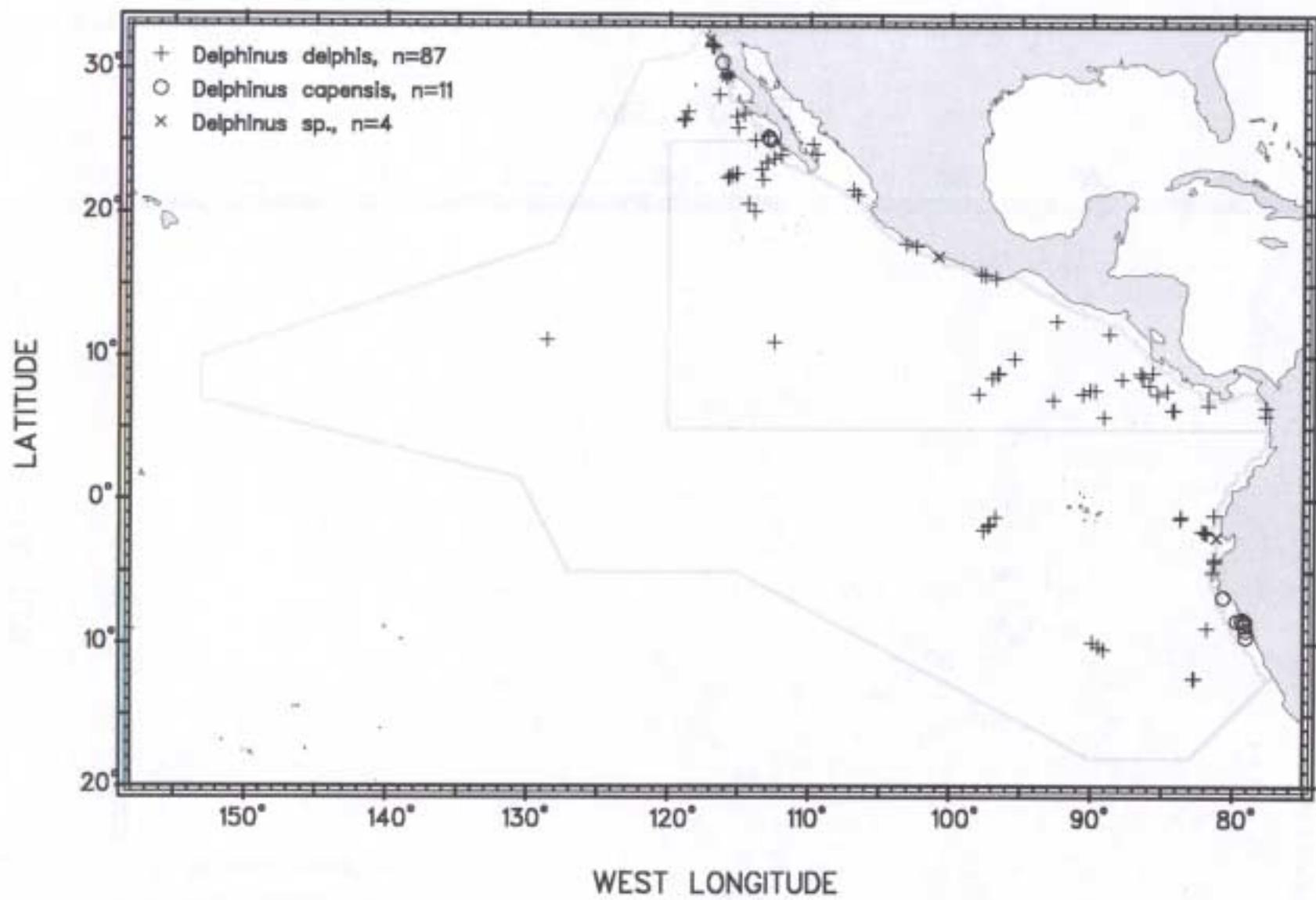


Figure 7. Common (short- and long-beaked) dolphin sightings during STAR00.

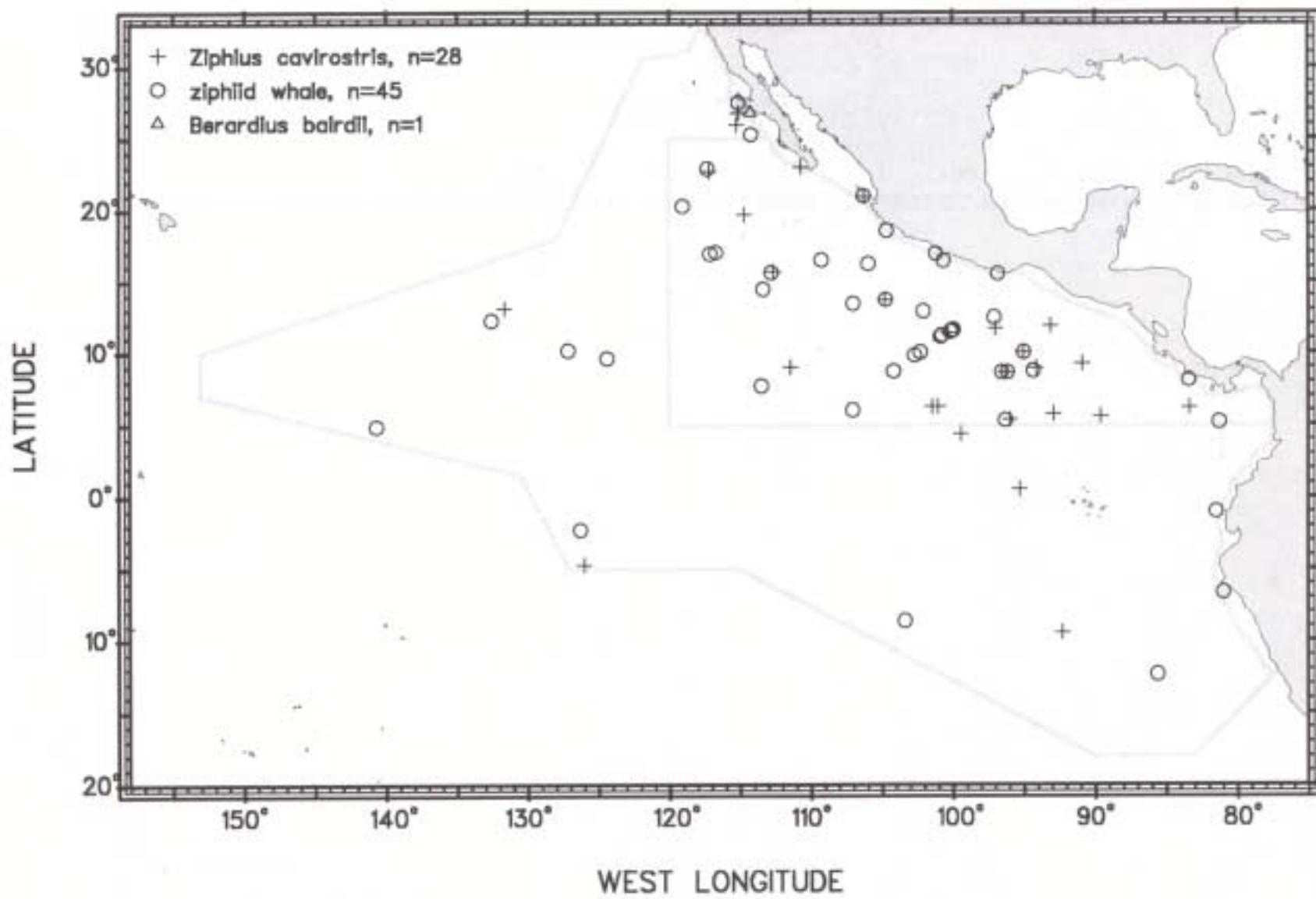


Figure 8. Cuvier, unidentified Ziphid whale, and *Berardius* beaked whale sightings during STAR00.

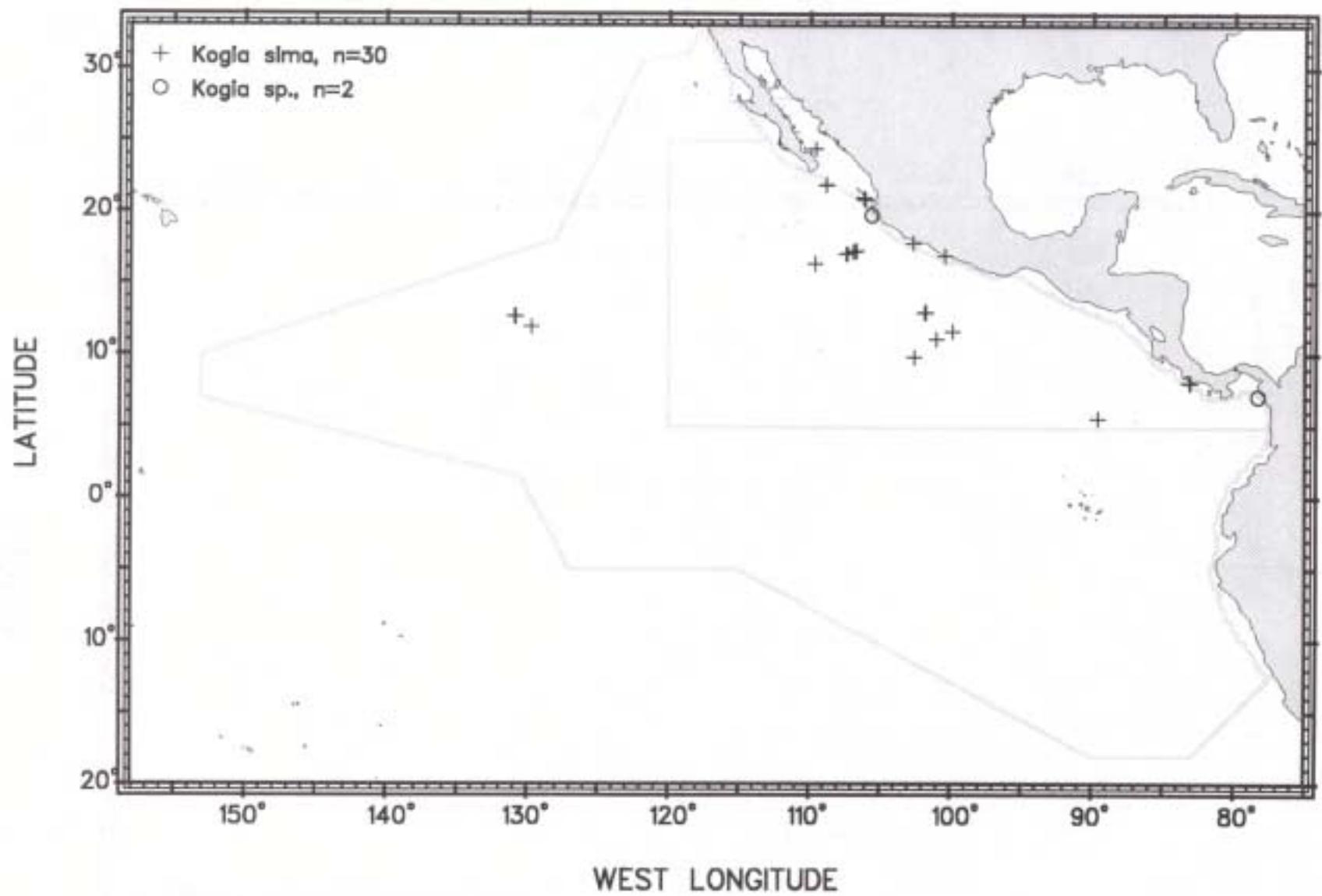


Figure 9. Dwarf sperm and unidentified *Kogia* sp. whale sightings during STAR00.

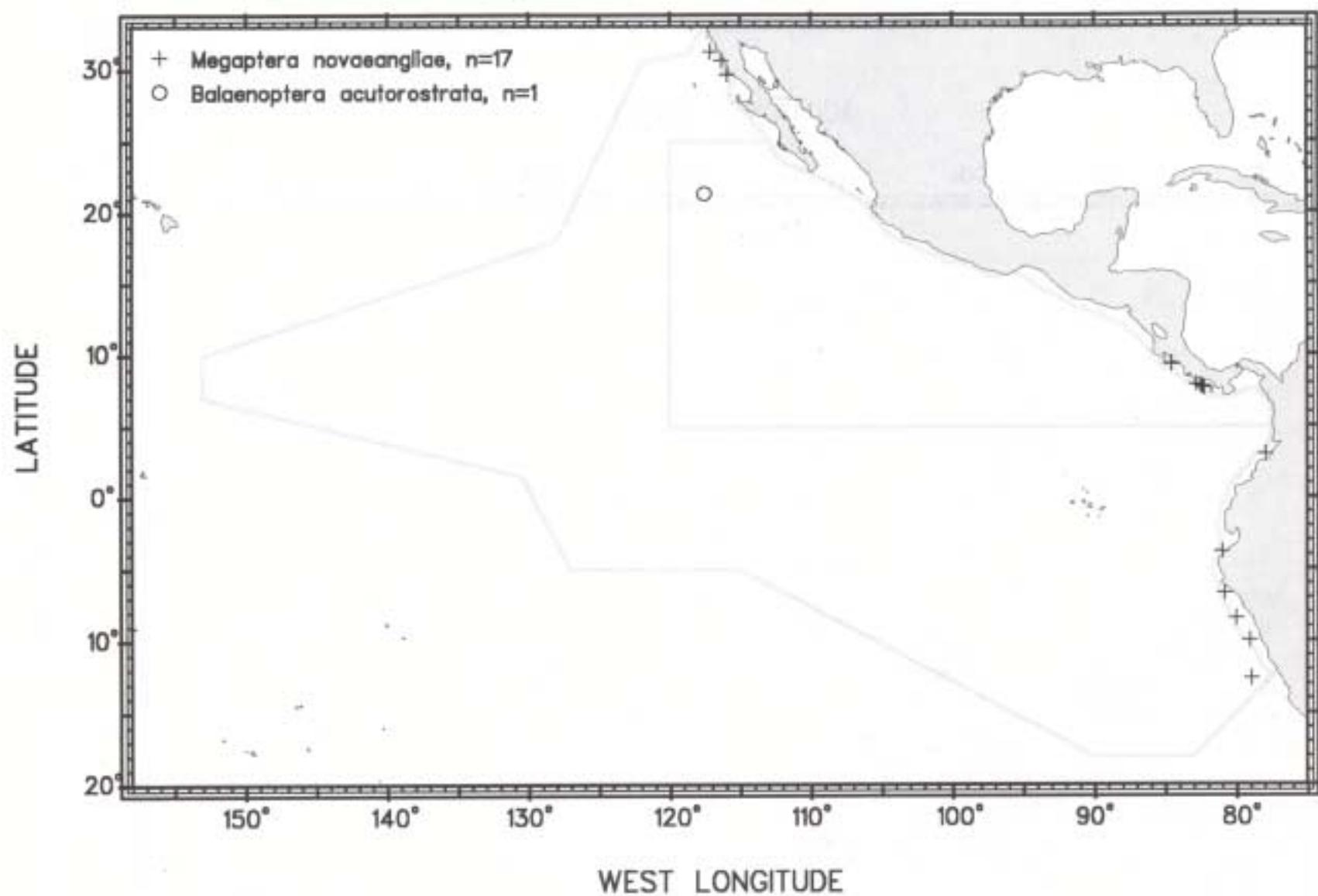


Figure 10. Humpback and minke whale sightings during STAR00.

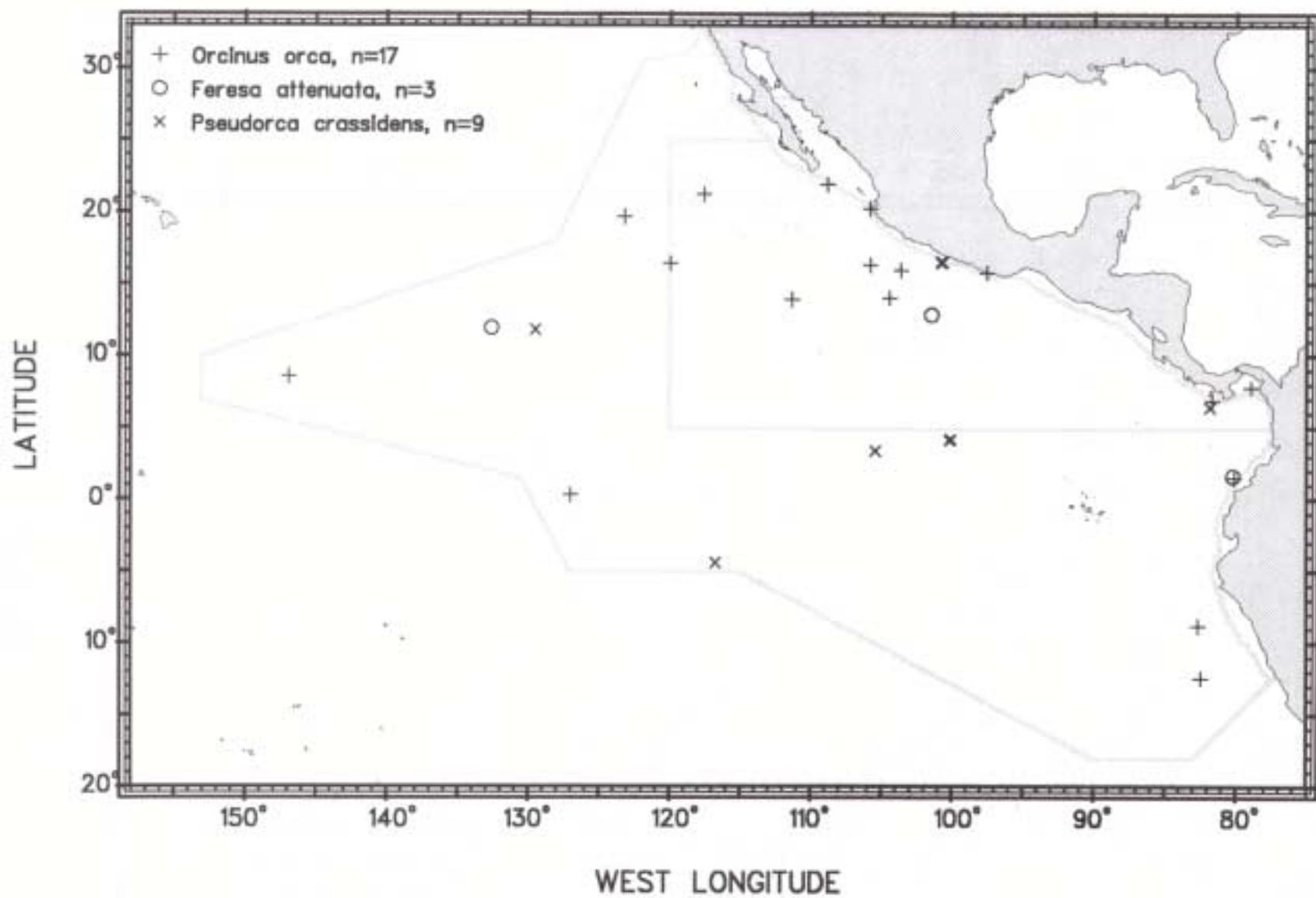


Figure 11. Killer, pygmy killer, and false killer whale sightings during STAR00.

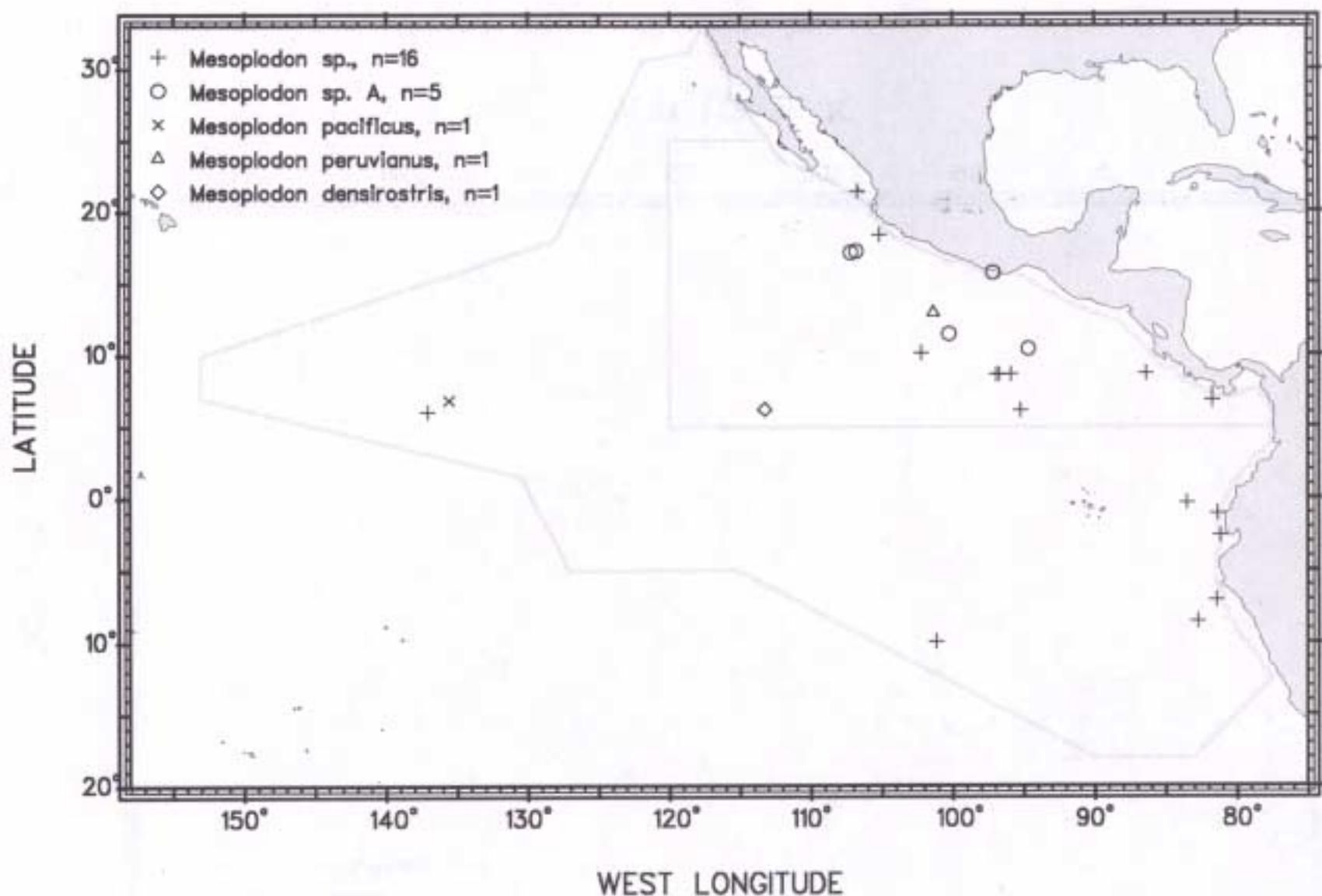


Figure 12. *Mesoplodon* spp. whale sightings during STAR00.

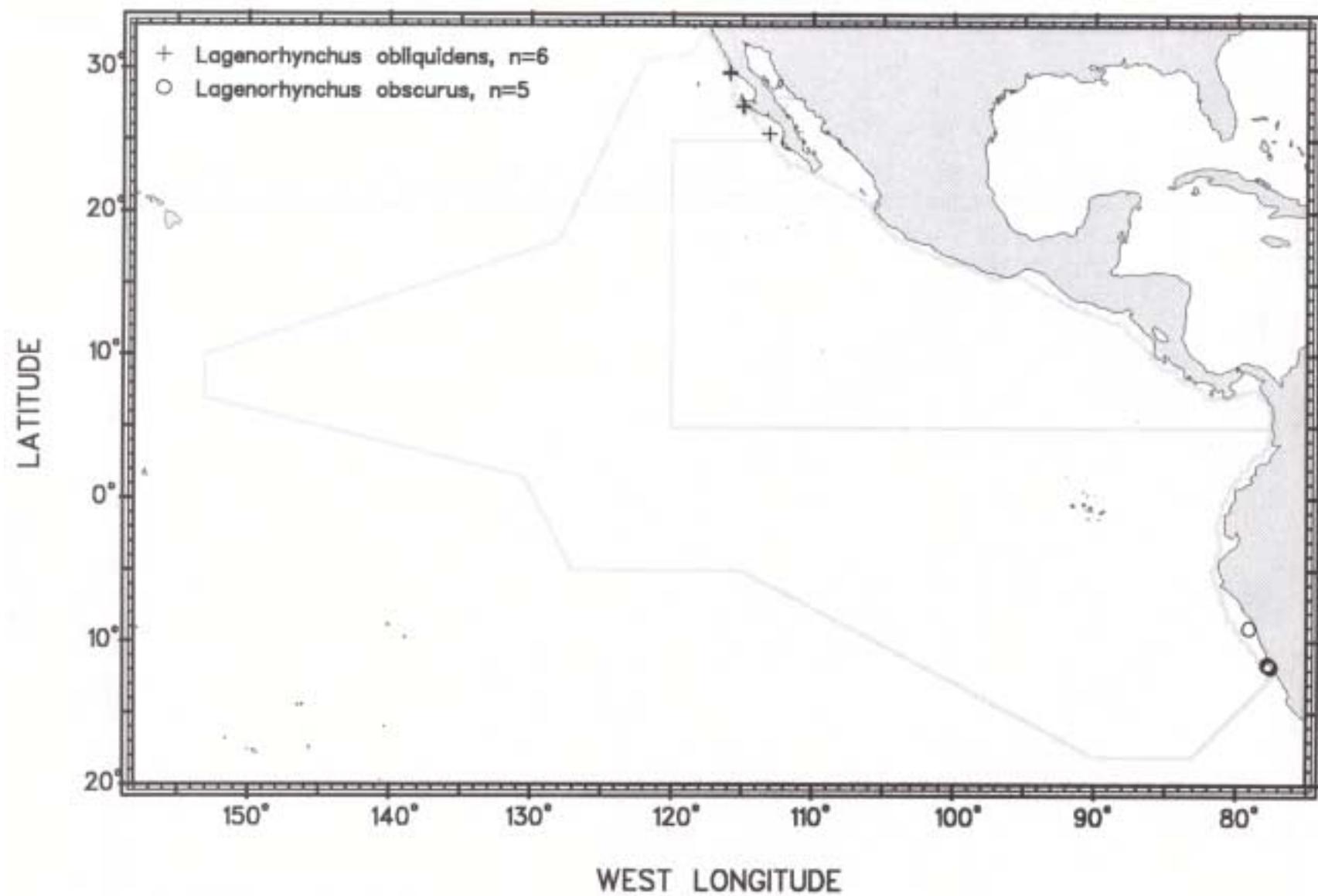


Figure 13. Pacific white-sided and dusky dolphin sightings during STAR00.

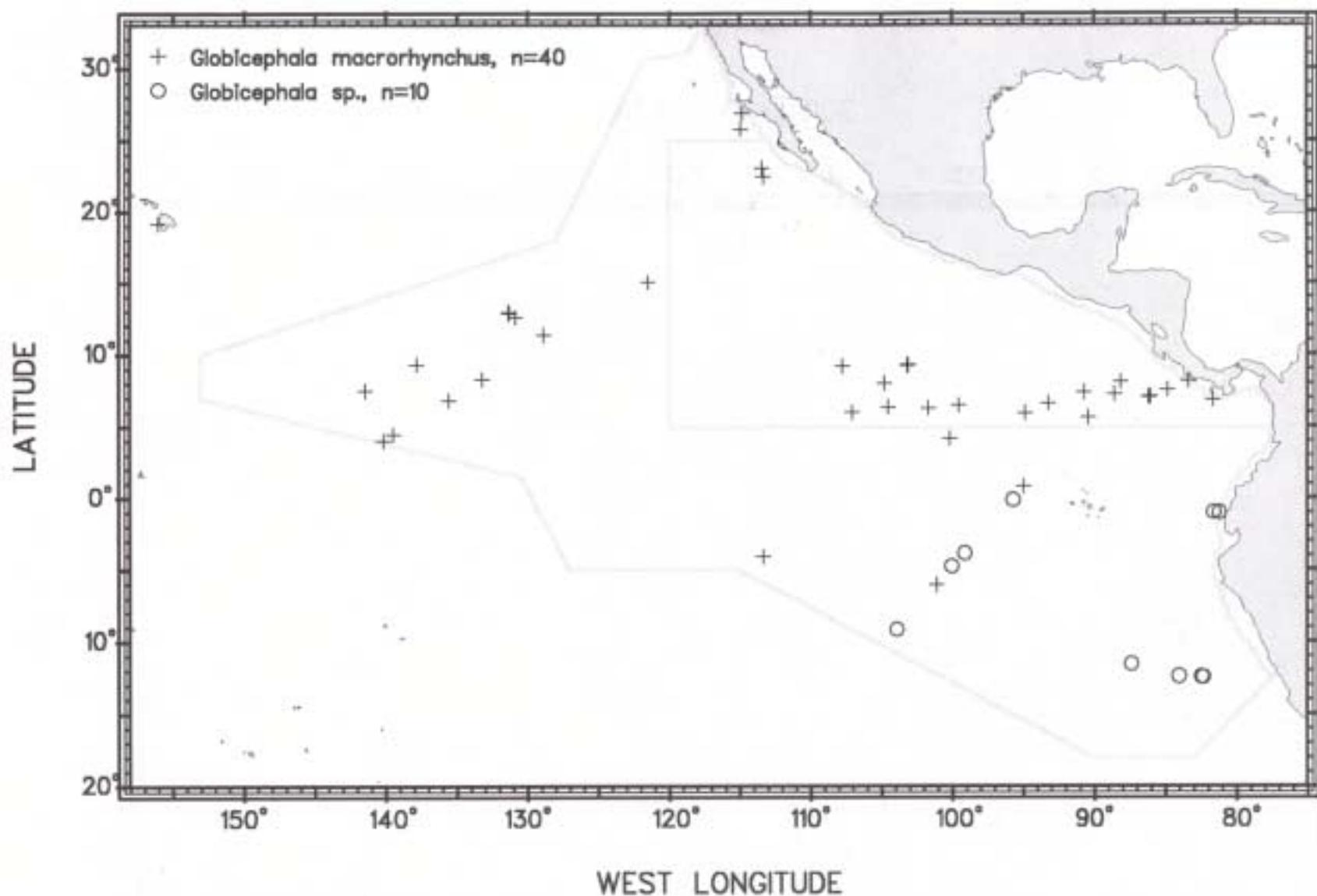


Figure 14. Pilot whale sightings during STAR00.

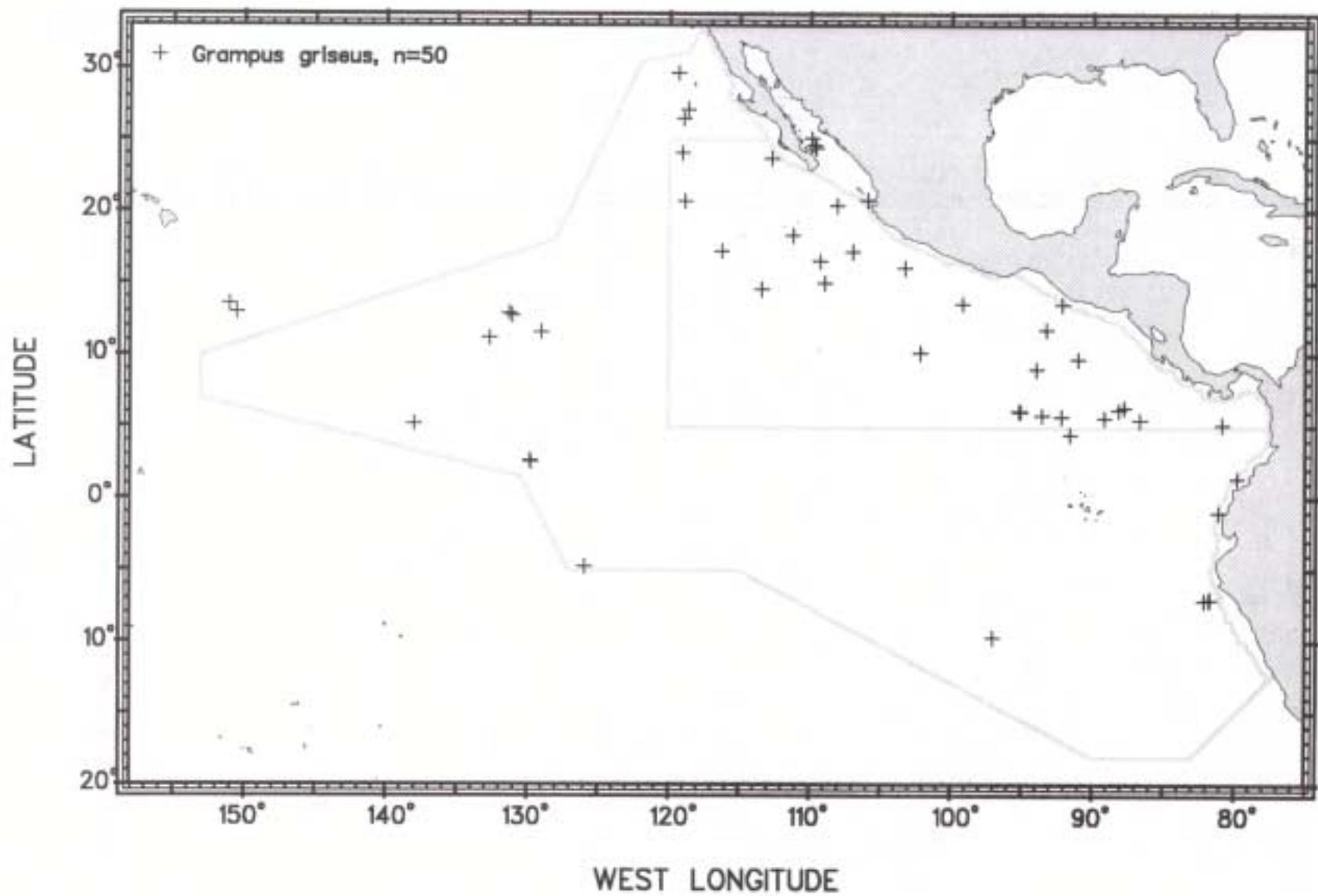


Figure 15. Risso's dolphin sightings during STAR00.

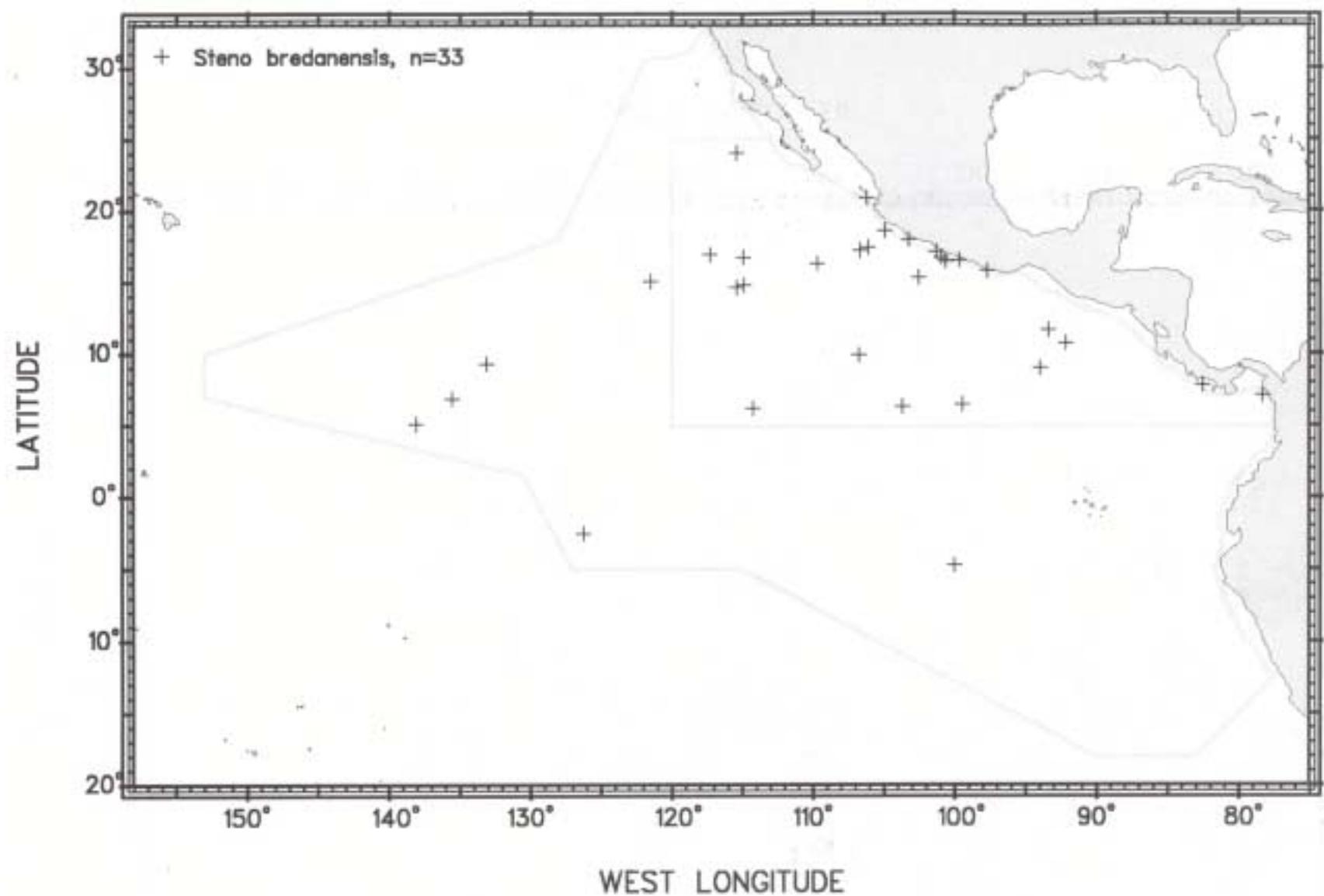


Figure 16. Rough-toothed dolphin sightings during STAR00.

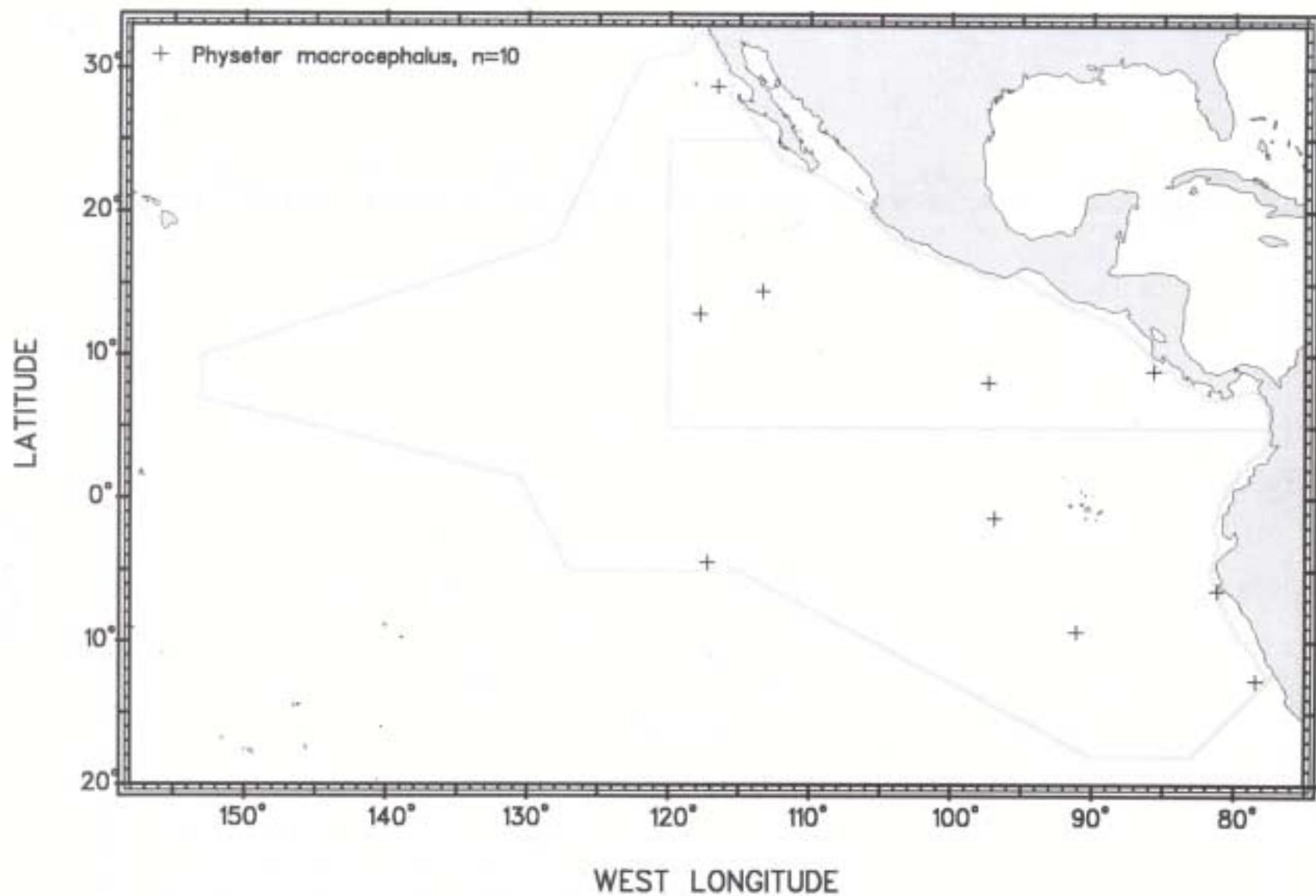


Figure 17. Sperm whale sightings during STAR00.

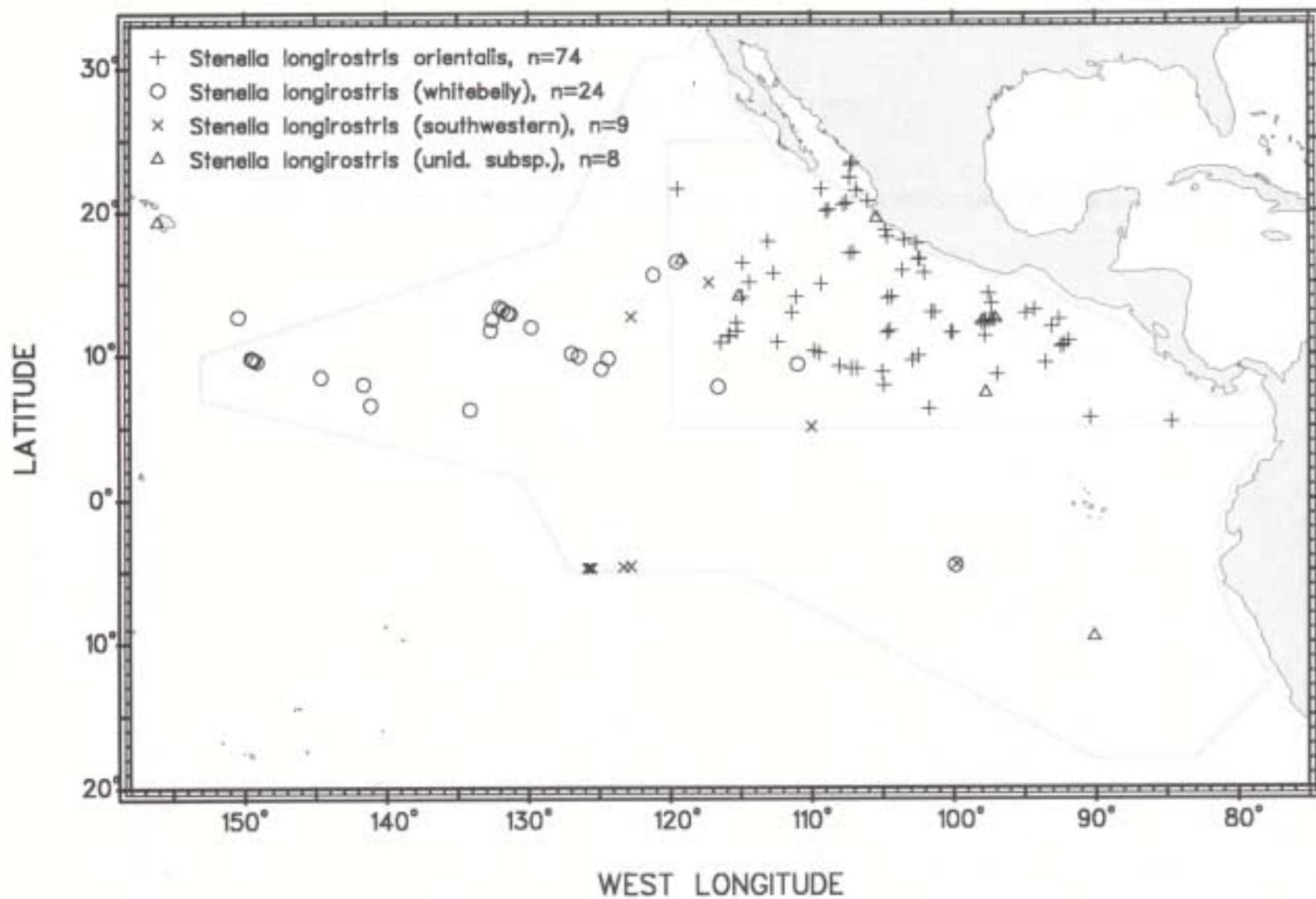


Figure 18. Spinner dolphin sightings during STAR00.

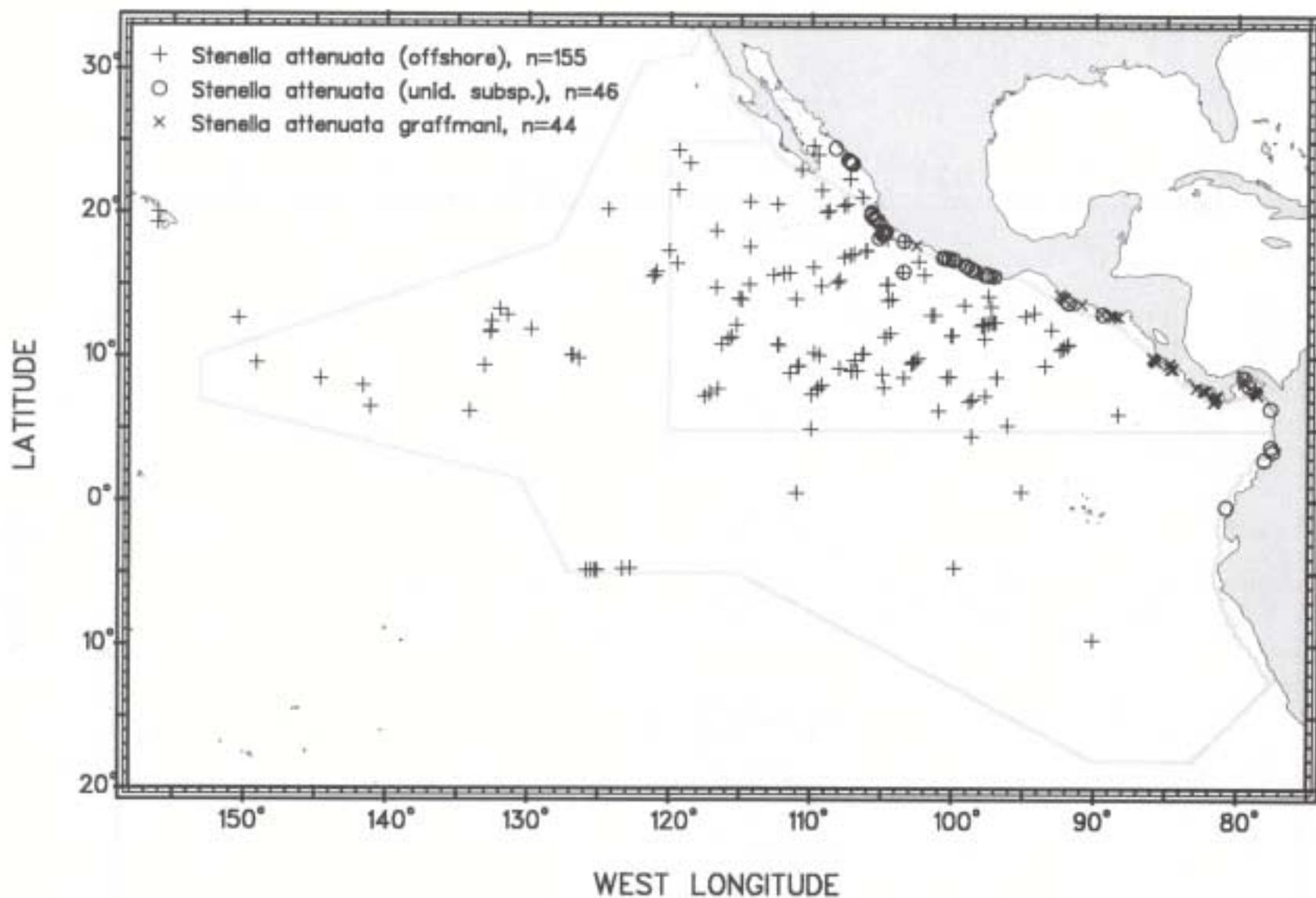


Figure 19. Spotted dolphin sightings during STAR00.

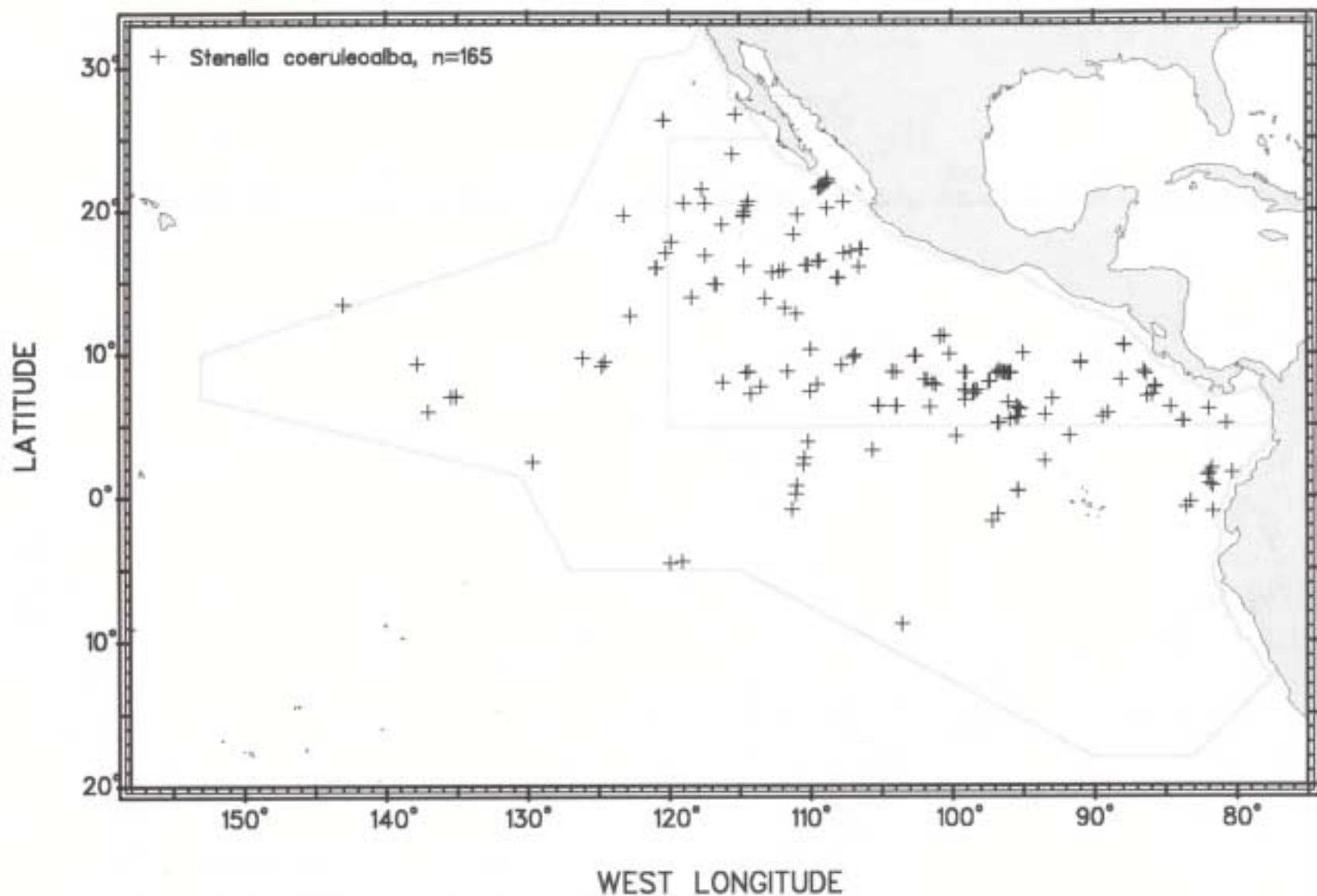


Figure 20. Striped dolphin sightings during STAR00.

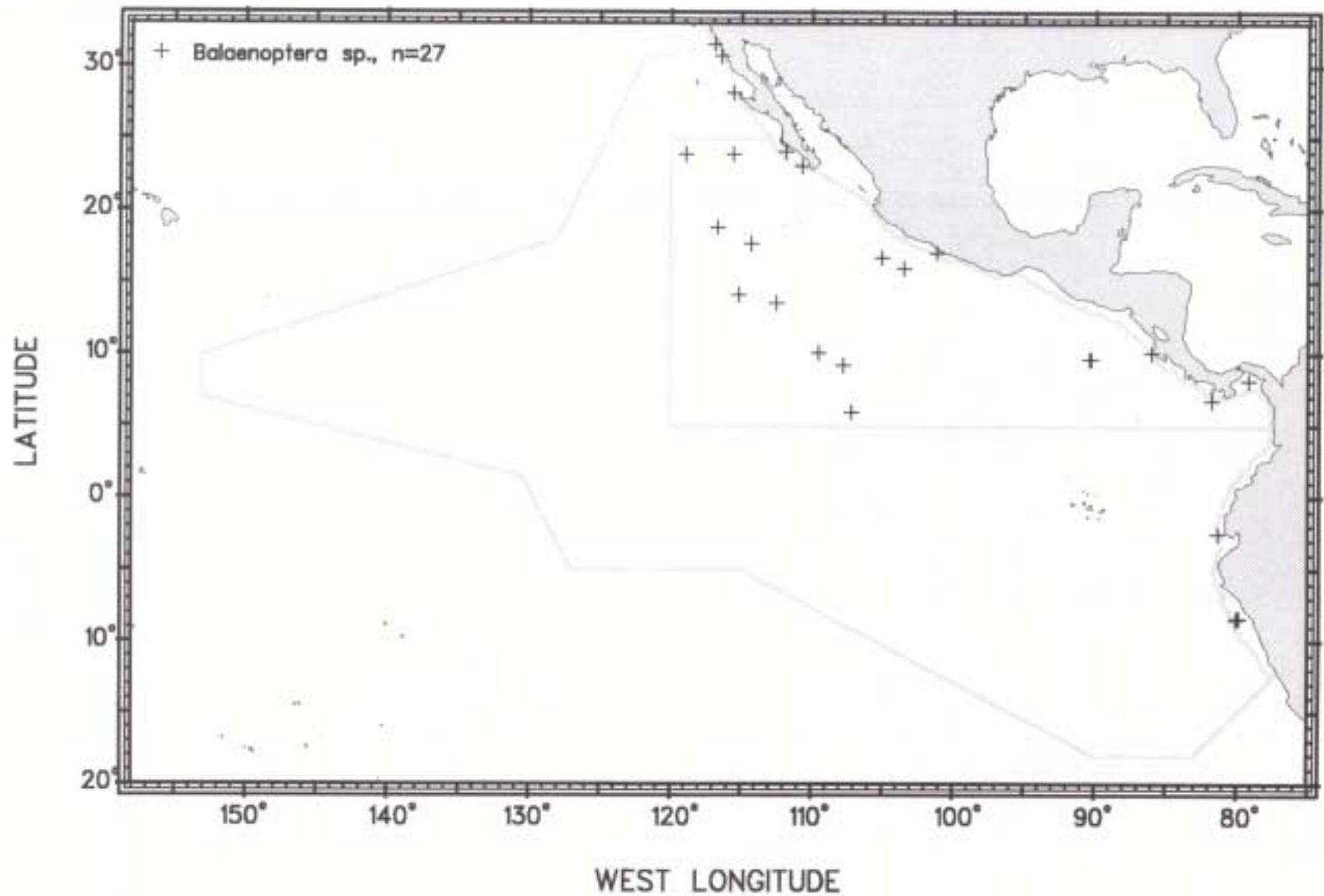


Figure 21. Unidentified baleen whale sightings during STAR00.

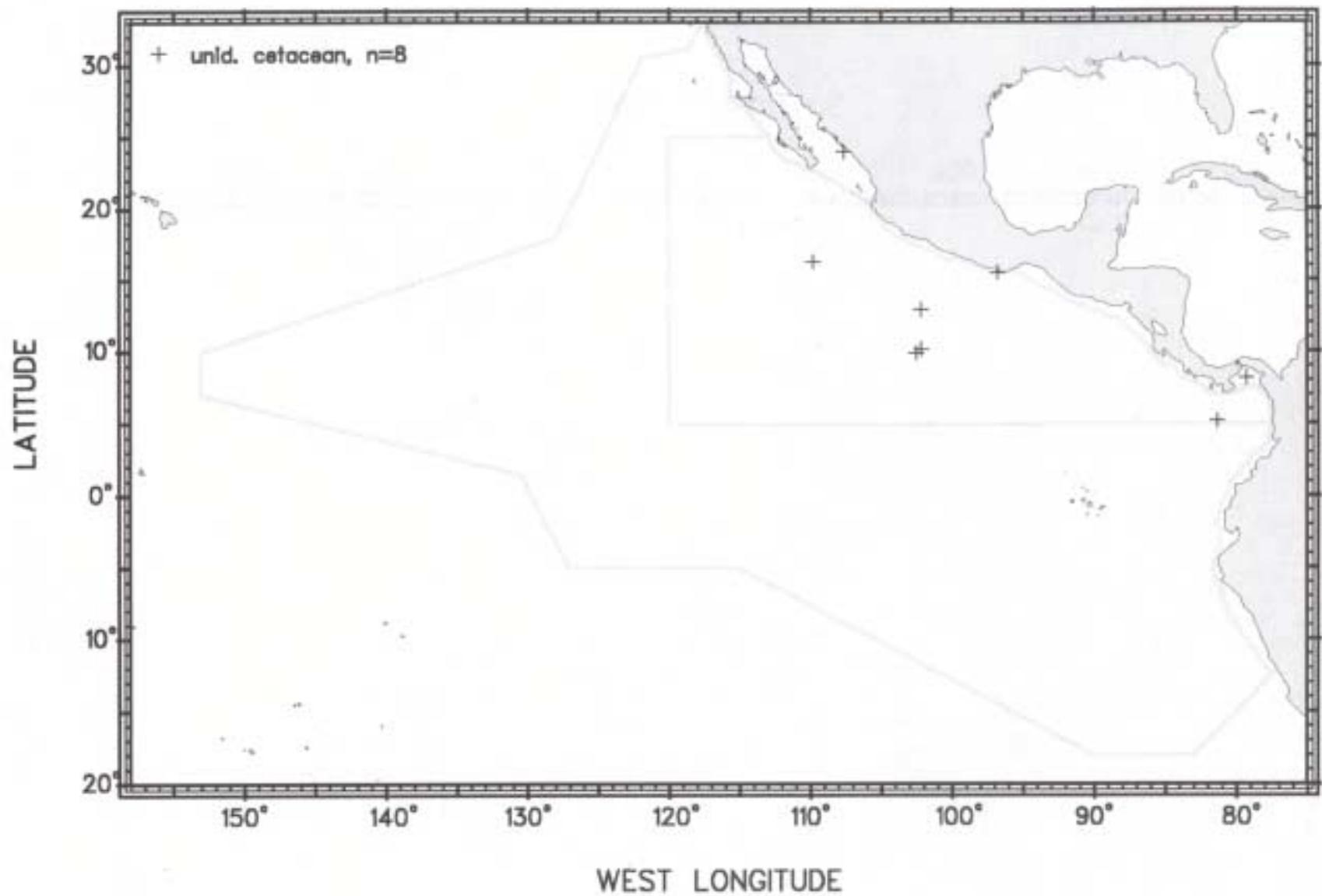


Figure 22. Unidentified cetacean sightings during STAR00.

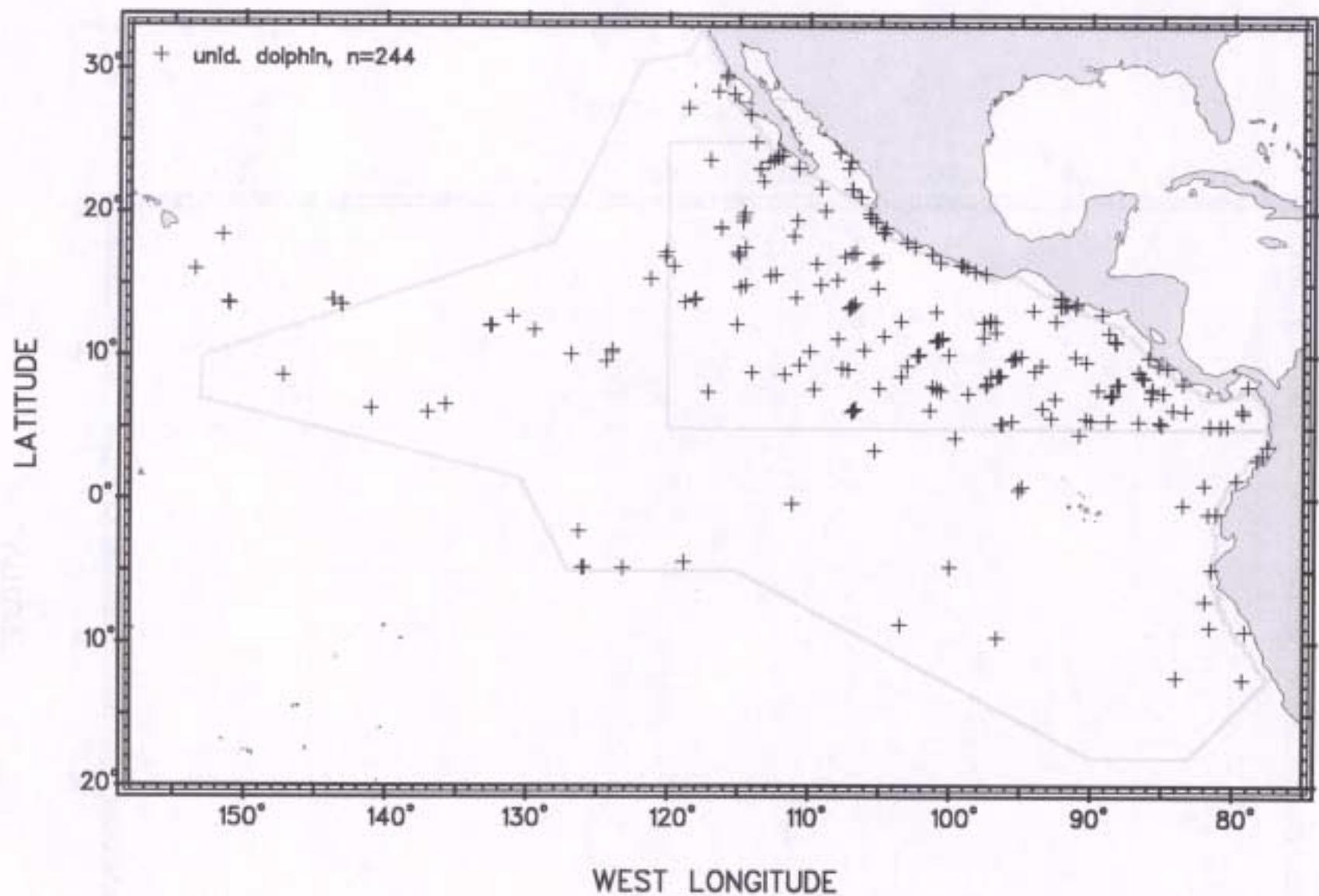


Figure 23. Unidentified dolphin sightings during STAR00.

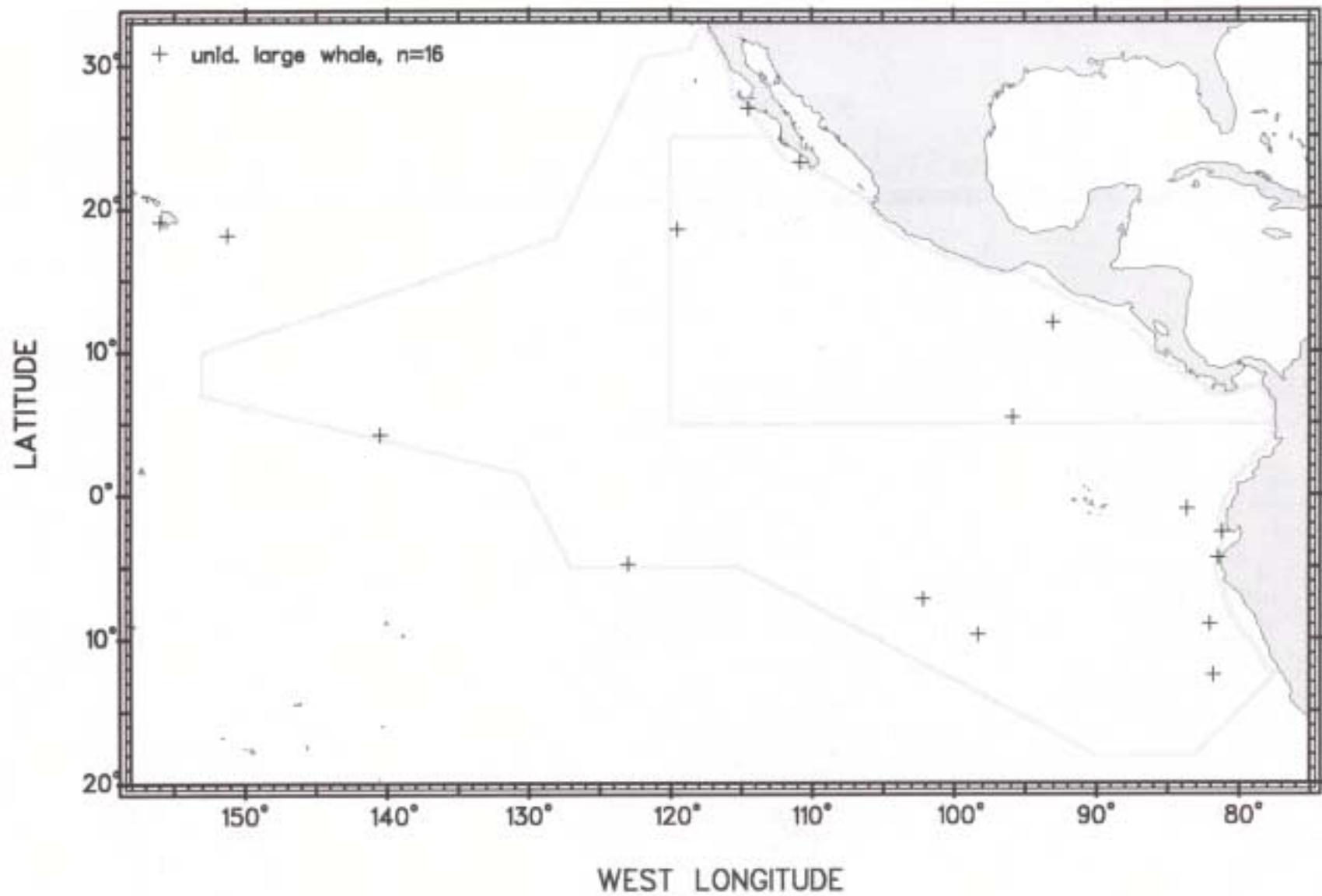


Figure 24. Unidentified large whale sightings during STAR00.

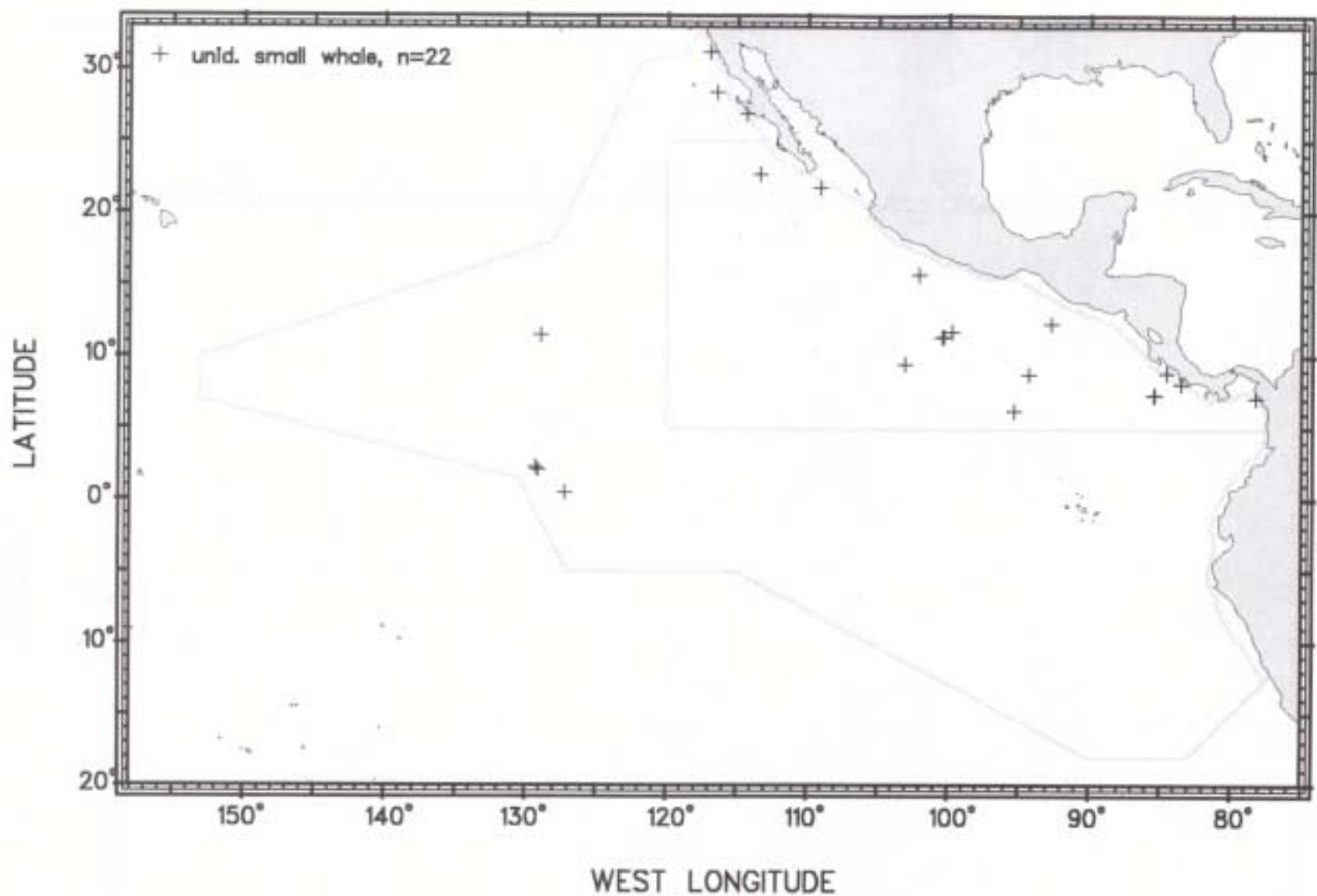


Figure 25. Unidentified small whale sightings during STAR00.

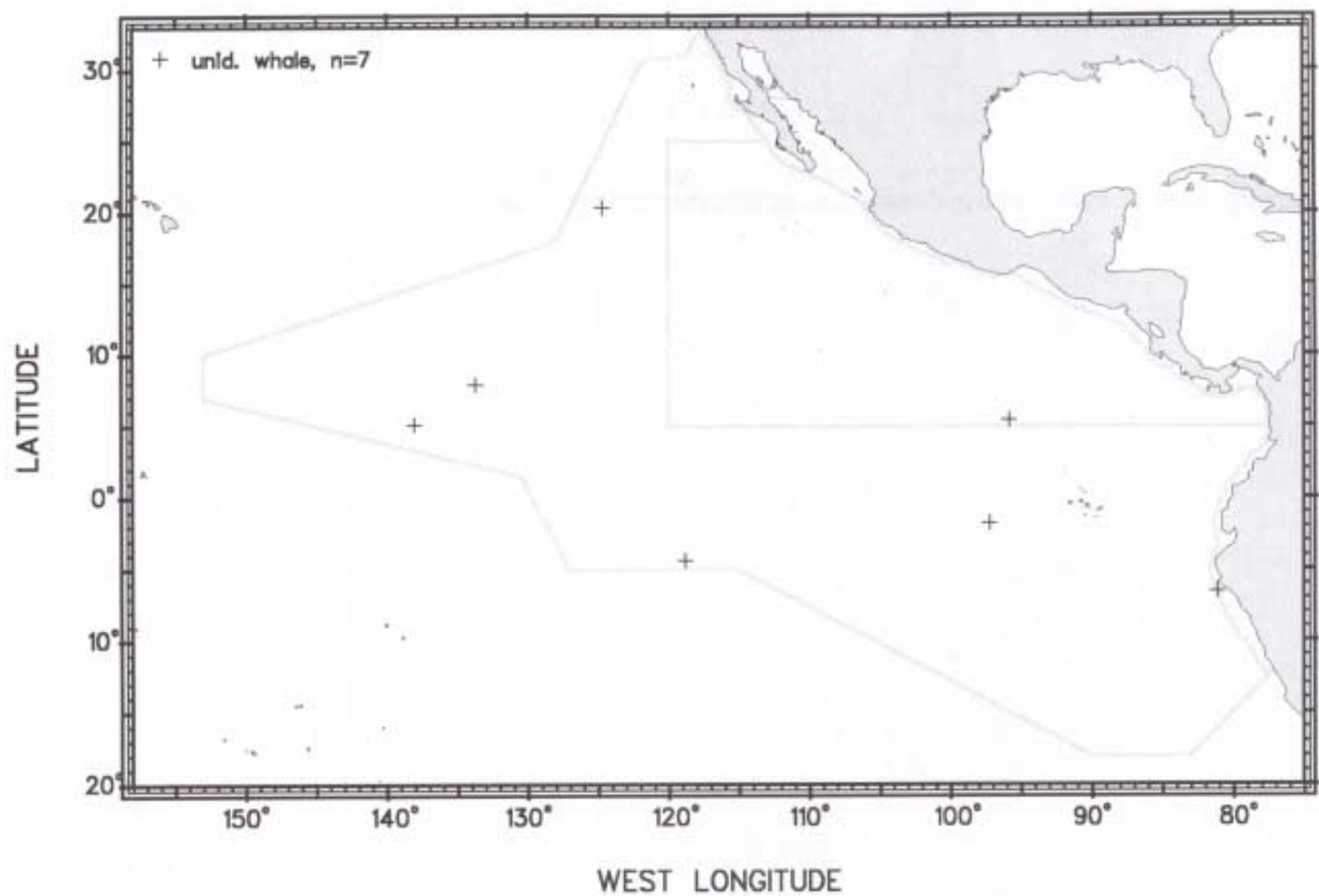


Figure 26. Unidentified whale sightings during STAR00.

SIGHTED ACOUSTIC DETECTIONS  
× (sp. code SDW), n=192

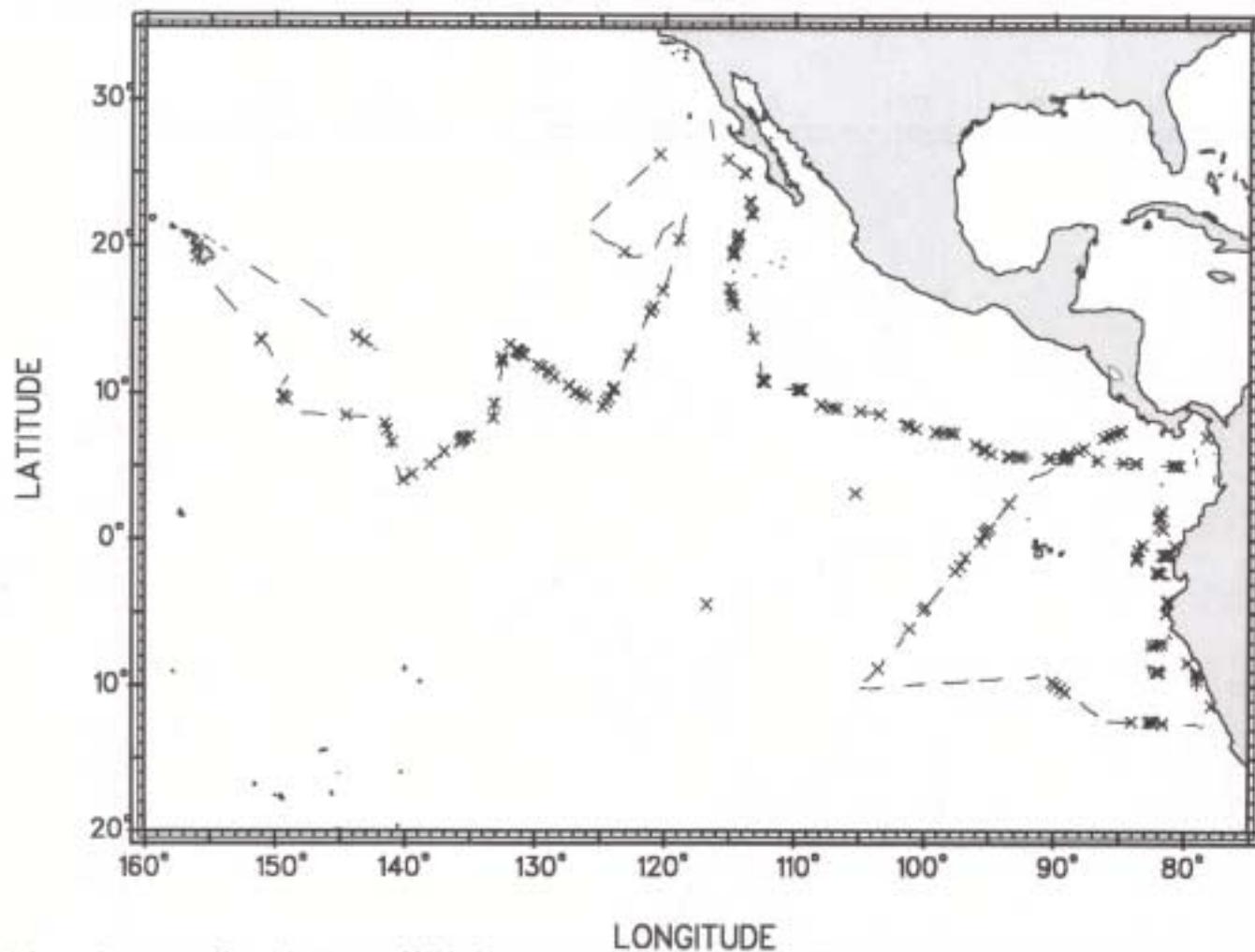


Figure 27. Acoustic survey effort using a towed hydrophone array (line segments), and locations where clear delphinid whistles of *sighted* animals were noted ("x").

NON-SIGHTED ACOUSTIC DETECTIONS  
+ (sp. code NDW), n=194

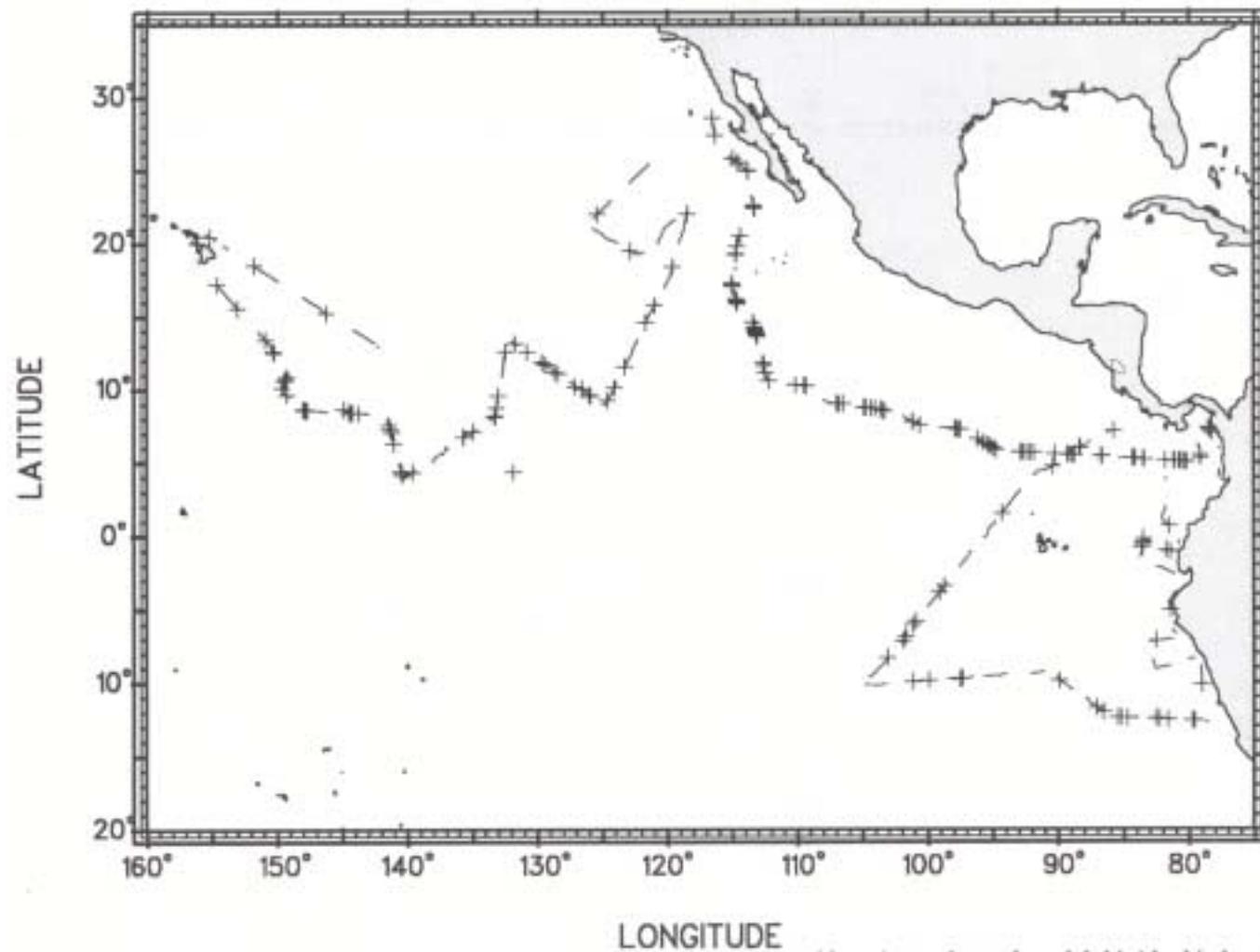


Figure 28. Acoustic survey effort using a towed hydrophone array (line segments), and locations where clear delphinid whistles of *non-sighted* animals were noted ("+").

SPERM WHALE ACOUSTIC DETECTIONS  
▲ (sp. code 046), n=27

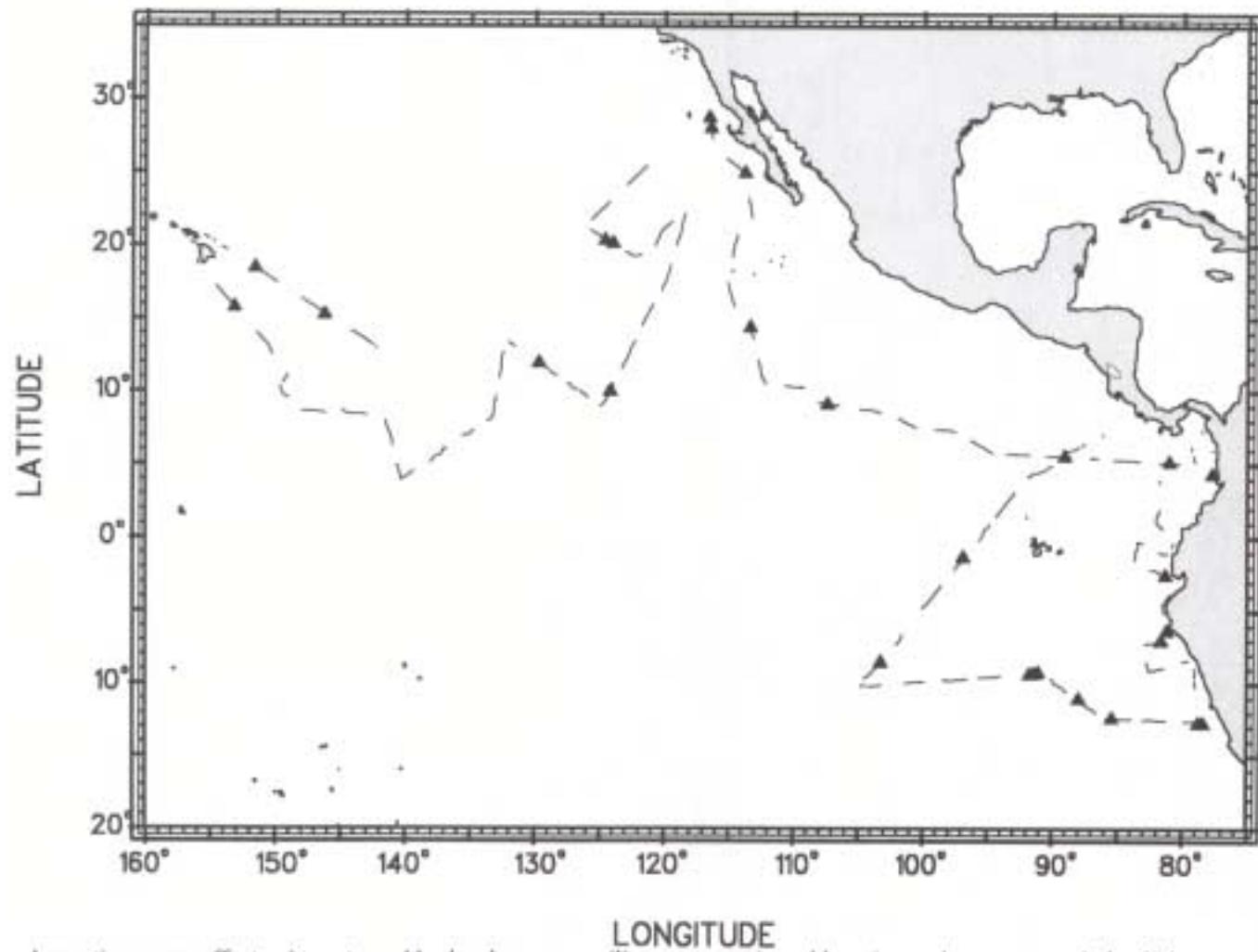


Figure 29. Acoustic survey effort using a towed hydrophone array (line segments), and locations where sperm whale clicks were detected (triangles).

**Appendix A.** Study area boundary points for STAR00 survey. The eastern boundary is defined by the coastline of the Americas.

32° 32.12' N, 117° 7.34' W  
32° 35.37' N, 117° 27.82' W  
32° 37.61' N, 117° 49.52' W  
31° 7.97' N, 118° 36.30' W  
30° 32.52' N, 121° 52.00' W  
18° 0.00' N, 128° 0.00' W  
10° 0.00' N, 153° 0.00' W  
7° 0.00' N, 153° 0.00' W  
1° 30.00' N, 130° 30.00' W  
5° 0.00' S, 127° 0.00' W  
5° 0.00' S, 115° 0.00' W  
18° 0.00' S, 90° 0.00' W  
18° 0.00' S, 83° 0.00' W  
12° 0.00' S, 77° 0.00' W

Strata Boundaries: The coastal stratum is inshore of the 1000 meter depth contour. The core stratum is defined by the following points:

5° 0.00' N, 77° 38.04' W  
5° 0.00' N, 120° 0.00' W  
25° 0.00' N, 120° 0.00' W  
25° 0.00' N, 112° 51.60' W

## Appendix B. Participating scientists and the ship legs on which they sailed during STAR00.

Name	Observer Number	Position	Affiliation <sup>1</sup>	D. S. Jordan Leg #						McArthur Leg #				
				1	2	3	4	5	6	1	2	3	4	5
Lisa Ballance	120	Chief Scientist	SWFSC		x	x	x			x				
Eric Archer	085	Cruise Leader	SWFSC								x			
James Carretta	071	Cruise Leader	SWFSC									x		
Tim Gerrodette	084	Cruise Leader	SWFSC										x	
Sarah Mesnick	159	Cruise Leader	SWFSC								x			
Robert Pitman	004	Cruise Leader/Birder	SWFSC	x	x	x	x	x	x					
James Cotton	007	ID Specialist	SWFSC			x	x	x		x	x			
Doug Kinzey	091	ID Specialist	SWFSC	x	x	x					x	x	x	
Paula Olson	092	ID Specialist	SWFSC	x	x	x					x	x	x	
Richard Rowlett	073	ID Specialist	SWFSC			x	x	x		x	x			
Isabel Beasley	196	Mammal Observer	SWFSC			x	x	x		x	x			
Anne Douglas	199	Mammal Observer	SWFSC			x	x	x		x	x			
Kathy Hough	188	Mammal Observer	SWFSC			x	x	x		x	x			
Erin LaBrecque	200	Mammal Observer	SWFSC	x	x	x					x	x	x	
Laura Morse	149	Mammal Observer	SWFSC		x	x					x	x	x	
Juan Carlos Salinas	126	Mammal Observer	SWFSC	x	x	x					x	x	x	
Ernesto Vázquez	125	Mammal Observer	SWFSC			x	x	x		x	x			
Suzanne Yin	197	Mammal Observer	SWFSC	x	x	x					x	x	x	
Jay Barlow	015	Acoustician	SWFSC							x				
Xenia Brobeil		Acoustician	SWFSC									x		
Ann Chen		Acoustician	SWFSC									x		
Megan Ferguson		Acoustician	SIO								x			
Tom Norris	161	Acoustician	SWFSC									x		
Shannon Rankin	184	Acoustician	SWFSC							x	x	x	x	x

<sup>1</sup> SIO: Scripps Institution of Oceanography, UC San Diego

IMARPE: Instituto del Mar del Perú

INP: Instituto National de la Pesca, México

INOCAR: Instituto Oceanográfico de la Armada de Ecuador

DIMAR: Armada Nacional - Direccion General Maritima, Colombia

AOC: Aircraft Operations Center, National Oceanic and Atmospheric Administration

**Appendix B. Participating scientists (continued)**

Name	Observer Number	Position	Affiliation	D. S. Jordan Leg #						McArthur Leg #				
				1	2	3	4	5	6	1	2	3	4	5
Michael Force	098	Birder	SWFSC	x	x	x	x					x	x	
Chris Hoefer		Birder	SWFSC							x	x	x	x	x
Brett Jarrett		Birder	SWFSC					x	x	x	x	x	x	
Sophie Webb		Birder	SWFSC	x	x									
Roy Dehart		Helicopter Mechanic	AOC	x	x					x				
Ron Helgeson		Helicopter Mechanic	AOC			x	x	x						
Debora Barr		Helicopter Pilot	AOC						x					
Dave Gardner		Helicopter Pilot	AOC			x	x							
Julie Helmets		Helicopter Pilot	AOC	x	x					x				
Ron Dotson		Oceanographer	SWFSC			x	x							
Dave Griffith		Oceanographer	SWFSC					x	x					
Amy Hays		Oceanographer	SWFSC		x									
Kerry Kopitsky		Oceanographer	SWFSC	x	x	x	x	x	x					
Pierre Malan		Oceanographer	SWFSC							x	x			
Dagmar Merkle		Oceanographer	SWFSC								x	x	x	
Valerie Philbrick	089	Oceanographer	SWFSC	x										
John Brandon		Photogrammetrist	SWFSC	x	x									
Katie Cramer		Photogrammetrist	SWFSC			x	x							
Jim Gilpatrick	080	Photogrammetrist	SWFSC			x	x							
Morgan Lynn	057	Photogrammetrist	SWFSC	x	x		x							
Wayne Perryman	110	Photogrammetrist	SWFSC					x			x			
Charlie Stinchcomb	145	Photogrammetrist	SWFSC			x	x							
Ruth Bello		Visiting Scientist	IMARPE									x		
Nelson Fabian-Caro		Visiting Scientist	DIMAR								x			
Guillermo Jiménez-Bastida		Visiting Scientist	INP					x			x	x		
Nathan Lovejoy		Visiting Scientist	UC Berkeley				x							
Julie Oswald	190	Visiting Scientist	SIO						x		x			
Gladys Torres		Visiting Scientist	INOCAR									x		
Rueben Valenzula		Visiting Scientist	INP	x										
				Totals	15	15	15	16	15	15	13	13	13	13

## Appendix C. SWFSC sighting-categories of marine mammals.

Code	Genus/taxa	Species/stock	Common names
001	<i>Mesoplodon</i>	<i>peruvianus</i>	Pygmy beaked whale
002	<i>Stenella</i>	<i>attenuata</i> (offshore)	Offshore pantropical spotted dolphin, offshore spotter
003	<i>Stenella</i>	<i>longirostris</i> (unid. subsp.)	Unidentified spinner dolphin, spinner porpoise
004	<i>Stenella</i>	<i>clymene</i>	Clymene dolphin, short-snouted spinner dolphin
005	<i>Delphinus</i>	spp.	Unidentified common dolphin, saddleback dolphin, whitebelly
006	<i>Stenella</i>	<i>attenuata graffmani</i>	Coastal spotted dolphin, spotter, silverbacks
007	<i>Sotalia</i>	<i>fluviatilis</i>	Tucuxi, Guiana dolphin
008	<i>Orcaella</i>	<i>brevirostris</i>	Irrawaddy dolphin, Lumbalumba
009	<i>Australophocaena</i>	<i>dioptrica</i>	Spectacled porpoise
010	<i>Stenella</i>	<i>longirostris orientalis</i>	Eastern spinner dolphin
011	<i>Stenella</i>	<i>longirostris</i> hybrid	Whitebelly spinner dolphin
012	<i>Lagenorhynchus</i>	<i>albirostris</i>	White-beaked dolphin
013	<i>Stenella</i>	<i>coeruleoalba</i>	Striped dolphin, streaker porpoise, euphrosyne dolphin
014	<i>Lagenorhynchus</i>	<i>acutus</i>	Atlantic white-sided dolphin
015	<i>Steno</i>	<i>bredanensis</i>	Rough-toothed dolphin, Steno
016	<i>Delphinus</i>	<i>capensis</i>	Baja neritic common dolphin, longbeaked common dolphin
017	<i>Delphinus</i>	<i>delphis</i>	Offshore common dolphin, shortbeaked common dolphin
018	<i>Tursiops</i>	<i>truncatus</i>	Bottlenose dolphin, black porpoise, common porpoise
019	<i>Cephalorhynchus</i>	<i>heavisidii</i>	Heaviside's dolphin
020	<i>Cephalorhynchus</i>	<i>hectori</i>	Hector's dolphin, pied dolphin, white front dolphin
021	<i>Grampus</i>	<i>griseus</i>	Risso's dolphin, gray grampus
022	<i>Lagenorhynchus</i>	<i>obliquidens</i>	Pacific white-sided dolphin, lag, hookfin porpoise
023	<i>Lagenorhynchus</i>	<i>australis</i>	Peale's dolphin, blackchin dolphin
024	<i>Lagenorhynchus</i>	<i>cruciger</i>	Hourglass dolphin
025	<i>Lagenorhynchus</i>	<i>obscurus</i>	Dusky dolphin
026	<i>Lagenodelphis</i>	<i>hosei</i>	Fraser's dolphin, Sarawak dolphin
027	<i>Lissodelphis</i>	<i>borealis</i>	Northern right whale dolphin
028	<i>Lissodelphis</i>	<i>peronii</i>	Southern right-whale dolphin
029	<i>Cephalorhynchus</i>	<i>eutropia</i>	Black dolphin, Chilean dolphin
030	<i>Cephalorhynchus</i>	<i>commersonii</i>	Commerson's dolphin, piebald dolphin

## Appendix C. SWFSC sighting-categories of marine mammals (continued)

Code	Genus/taxa	Species/stock	Common names
031	<i>Peponocephala</i>	<i>electra</i>	Melon-headed whale, Hawaiian/many-toothed blackfish
032	<i>Feresa</i>	<i>attenuata</i>	Pygmy killer whale, slender blackfish
033	<i>Pseudorca</i>	<i>crassidens</i>	False killer whale
034	<i>Globicephala</i>	spp.	Unidentified pilot whale
035	<i>Globicephala</i>	<i>melas</i>	Long-finned or Atlantic pilot whale, blackfish, pothead
036	<i>Globicephala</i>	<i>macrorhynchus</i>	Short-finned pilot whale, blackfish, pothead
037	<i>Orcinus</i>	<i>orca</i>	Killer whale
038	<i>Sousa</i>	<i>chinensis</i>	Indo-Pacific hump-backed dolphin, white dolphin
039	<i>Sousa</i>	<i>teuszii</i>	Atlantic hump-backed dolphin
040	<i>Phocoena</i>	<i>phocoena</i>	Harbor porpoise, herring hog
041	<i>Phocoena</i>	<i>sinus</i>	Vaquita, Gulf of California harbor porpoise
042	<i>Phocoena</i>	<i>spinipinnis</i>	Burmeister's porpoise, black porpoise
043	<i>Neophocaena</i>	<i>phocaenoides</i>	Black finless porpoise
044	<i>Phocoenoides</i>	<i>dalli</i>	Dall's porpoise
045	<i>Delphinapterus</i>	<i>leucas</i>	White whale, beluga, belukha, sea canary
046	<i>Physeter</i>	<i>macrocephalus</i>	Sperm whale
047	<i>Kogia</i>	<i>breviceps</i>	Pygmy sperm whale
048	<i>Kogia</i>	<i>simus</i>	Dwarf sperm whale
049	<i>Ziphiidae</i>		Unidentified beaked whale
050	<i>Hyperoodon</i>	<i>planifrons</i>	Southern bottlenose whale, flathead bottlenose whale
051	<i>Mesoplodon</i>	spp.	Unidentified Mesoplodon
052	<i>Mesoplodon</i>	<i>carlhubbsi</i>	Hubb's beaked whale, archbeak whale
053	<i>Mesoplodon</i>	<i>hectori</i>	Hector's beaked whale
054	<i>Mesoplodon</i>	<i>bowdoini</i>	Andrew's beaked whale, deepcrest whale
055	<i>Mesoplodon</i>	<i>europaeus</i>	Gervais' beaked whale, Antillean beaked whale
056	<i>Mesoplodon</i>	<i>bidens</i>	Sowerby's beaked whale
057	<i>Mesoplodon</i>	<i>ginkgodens</i>	Ginkgo-toothed beaked whale
058	<i>Mesoplodon</i>	<i>grayi</i>	Gray's beaked whale
059	<i>Mesoplodon</i>	<i>densirostris</i>	Blaineville's beaked, dense-beaked, tropical beaked whale
060	<i>Mesoplodon</i>	<i>layardi</i>	Strap-toothed whale
061	<i>Ziphius</i>	<i>cavirostris</i>	Cuvier's beaked whale, goose-beaked whale
062	<i>Berardius</i>	<i>arnuxii</i>	Arnoux's beaked whale, southern giant bottlenose whale
063	<i>Berardius</i>	<i>bairdii</i>	Baird's beaked whale, nouthern giant bottlenose whale

## Appendix C. SWFSC sighting-categories of marine mammals (continued)

Code	Genus/taxa	Species/stock	Common names
064	<i>Tasmacetus</i>	<i>shepherdi</i>	Shepherd's beaked whale
065	<i>Mesoplodon</i>	<i>pacificus</i>	Longman's beaked whale, Indo-Pacific beaked whale
066	<i>Eubalaena</i>	<i>glacialis</i>	Northern right whale
067	<i>Balaena</i>	<i>mysticetus</i>	Bowhead whale
068	<i>Caperea</i>	<i>marginata</i>	Pygmy right whale
069	<i>Eschrichtius</i>	<i>robustus</i>	Gray whale
070	<i>Balaenoptera</i>	spp.	Unidentified Rorqual
071	<i>Balaenoptera</i>	<i>acutorostrata</i>	Minke whale
072	<i>Balaenoptera</i>	<i>edeni</i>	Bryde's whale
073	<i>Balaenoptera</i>	<i>borealis</i>	Sei whale
074	<i>Balaenoptera</i>	<i>physalus</i>	Fin whale
075	<i>Balaenoptera</i>	<i>musculus</i>	Blue whale
076	<i>Megaptera</i>	<i>novaehollandiae</i>	Humpback whale
077	unid. dolphin		Unidentified dolphin or porpoise
078	unid. small whale		Unidentified small whale
079	unid. large whale		Unidentified large whale
080	<i>Kogia</i>	<i>simus/breviceps</i>	Unidentified Kogia dwarf or pygmy sperm whale
081	<i>Mesoplodon</i>	<i>stejnegeri</i>	Steinger's, sabertooth, Bering Sea beaked whale
082	<i>Mesoplodon</i>	<i>mirus</i>	True's Beaked Whale
083	<i>Mesoplodon</i>	sp. A	Unnamed beaked whale
084	<i>Hyperoodon</i>	<i>ampullatus</i>	Northern Bottlenose, North Atlantic bottlenose whale
085	<i>Monodon</i>	<i>monoceros</i>	Narwhal, sea unicorn
086	<i>Eubalaena</i>	<i>australis</i>	Southern right whale
087	<i>Pontoporia</i>	<i>blainvilleana</i>	Franciscana, La Plata dolphin
088	<i>Stenella</i>	<i>longirostris centroamericana</i>	Central American or Costa Rican spinner dolphin
089	<i>Stenella</i>	<i>attenuata/plagidion</i>	Unidentified spotted dolphin in Atlantic
090	<i>Stenella</i>	attenuata (unid. subsp.)	Unidentified spotted dolphin, spotter porpoise
091	<i>Stenella</i>	<i>frontalis</i>	Atlantic spotted dolphin, spotter porpoise
092	<i>Platanista</i>	<i>gangetica</i>	Ganges susu, Ganges dolphin
093	<i>Platanista</i>	<i>minor</i>	Indus susu, Indus dolphin
094	<i>Inia</i>	<i>geoffrensis</i>	Boto, Amazon river dolphin
095	<i>Lipotes</i>	<i>vexillifer</i>	Baiji, Chinese river dolphin, whitefin dolphin
096	unid cetacean		Unidentified cetacean

## Appendix C. SWFSC sighting-categories of marine mammals (continued)

Code	Genus/taxa	Species/stock	Common names
097	unid object		Unidentified object, possible marine mammal
098	unid. whale		Unidentified whale
099	<i>Balaenoptera</i>	<i>borealis/edeni</i>	Rorqual identified as a Sei or Bryde's whale
100	<i>Stenella</i>	<i>longirostris</i>	Tres Marias spinner dolphin
101	<i>Stenella</i>	<i>longirostris</i>	Southwestern spinner dolphin
102	<i>Stenella</i>	<i>longirostris</i>	Gray's spinner dolphin, pantropical spinner dolphin
103	<i>Stenella</i>	<i>longirostris</i>	Undetermined eastern or Central American spinner dolphin

### Pinniped codes:

Code	Genus/taxa	Species	Common names
AA	<i>Arctocephalus</i>	<i>australis</i>	South American fur seal
AG	<i>Arctocephalus</i>	<i>galapagoensis</i>	Galapagos fur seal
AT	<i>Arctocephalus</i>	<i>townsendi</i>	Guadalupe fur seal
CU	<i>Callorhinus</i>	<i>ursinus</i>	Northern fur seal
EJ	<i>Eumetopias</i>	<i>jubatus</i>	Stellar sea lion
MA	<i>Mirounga</i>	<i>angustirostris</i>	Northern elephant seal
OB	<i>Otaria</i>	<i>byronia</i>	South American sea lion
PU	unid. pinniped		Unidentified pinniped
PV	<i>Phoca</i>	<i>vitulina</i>	Harbor seal
UA	unid. fur seal		Unidentified fur seal
UO	unid. sea lion		Unidentified sea lion
US	unid. seal		Unidentified seal
ZC	<i>Zalophus</i>	<i>californianus</i>	California sea lion